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**NORTH
KOREA**
KIM DYNASTY
vs
THE WORLD

PLUS:

Anatomy of a Spitfire ✪

M1 Garand rifle ✪

Sopwith vs Fokker ✪

VALOUR IN THE SKIES

Face-to-face with a
USAF fighter ace

CHURCHILL'S

SECRET ARMY

How Britain's original black ops
set occupied Europe ablaze



TAMIL TIGERS
ORIGINS OF SRI LANKA'S
DIE-HARD REBELS



TANK KILLER
HUNTING DOWN
THE PANZER MENACE



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ZULU WAR



This dramatic limited edition set is a welcome addition to one of the most complete matte finished Zulu War figure collections available today. "Overrun," depicts a British Ambulance and occupants in the last moments of the Zulu attack on the British Army camped at Isandlwana, January 22, 1879.



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Welcome

“No soldier ever really survives a war”

– Audie Murphy, Medal of Honor recipient

Though we can recall the dates of any given war, in reality the effects of warfare are felt long after the guns are finally put down. In a few cases these can be largely positive. After the tumultuous Battle of Sekigahara (page 44), Japan experienced over two centuries of relative peace and the cultural flourishing of the Edo period.

Of course, the prolonged suffering of those closest to the conflict is always negative. Despite appearing to be the all-American hero, one of the most-decorated veterans and a Hollywood star, Audie Murphy was greatly troubled by his experiences of WWII (page 38).

Perhaps it's true that nothing ever survives a war unchanged – everything is unavoidably altered by the experience. As distant observers of this, all we can do is remain educated humble and inspired...



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CONTRIBUTORS



TOM FARRELL

Freelance journalist Tom has reported on conflicts all over the world, appearing in *The Guardian*, *The New Statesman*, *The Irish Times* and more. Over on page 54 he explores the origins of the Sri Lankan Civil War and the struggle of the Tamil Tigers.



NICK SOLDINGER

Never one to shy away from the darker realms of recent history, this issue Nick has delved into the shadowy world of the Special Operations Executive. Starting on page 28, he decodes how the secretive British organisation set occupied Europe ablaze.



JACK GRIFFITHS

Ever enthused by big engines, tracks and turrets, this issue Jack got his hands on a Soviet SU-76M tank-killer for the Operator's Handbook (page 86). Not content, he also rounded up 20 of the deadliest war machines of the last century (page 58).

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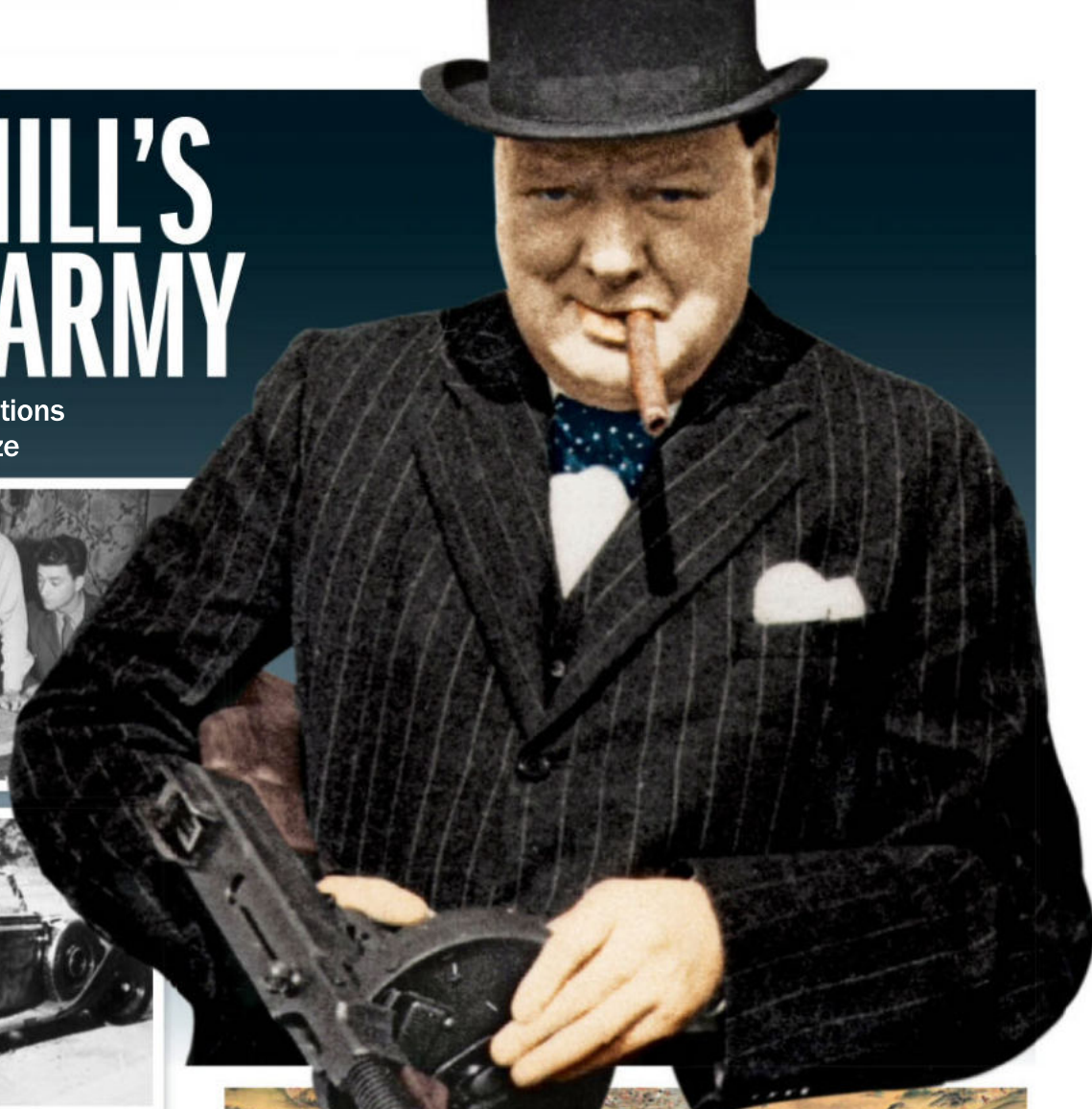
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Just some of the ingenious tools deployed by the crack commandos of the Special Operations Executive. Find out more on page 28



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How this baby-faced recruit ended up being America's most-decorated hero

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The figures tell a story of their own in this roundup of Kim Jong-un's regime

WARⁱⁿ FOCUS

A FULL BROADSIDE

Taken 1 July 1984

Here you can see the sheer force of the USS Iowa's 16" and 5" guns, firing during an exercise off the coast of Puerto Rico. Originally commissioned in 1943, the Iowa (BB-61) saw action during the Second World War and Korean War, before being deactivated in 1958. It was subsequently reactivated in 1984 and scheduled for modernisation, whereupon her anti-aircraft guns were replaced, 50- and 38-calibre guns were installed and up-to-date radar was built into the vessel. Iowa was struck in 2006 and is now a museum vessel.







WAR_{in} **FOCUS**

VIVE L'EMPEREUR!

Painted Édouard Detaille, 1891

The Battle of Friedland stands among Napoleon's greatest victories and sealed the fate of the Fourth Coalition against the French Empire in 1807. The Emperor's defeat of Tsar Alexander I's army was absolute, with the Russian force suffering around 30,000 casualties to just 10,000 French losses. Depicted here is the 4th Hussar Regiment, which was deployed at Friedland and was re-formed after Napoleon's return from exile and the beginning of his Hundred Days campaign, which culminated in the Battle of Waterloo.





WAR_{in} **FOCUS**

ATTACK OF THE ANZACS

Taken c. 1915

With their officer leading from the front (seen here at the extreme left of the picture), troops of the British Empire attack a Turkish position during the ill-fated Gallipoli Campaign of 1915-1916. Made up of British, French and ANZAC troops, the campaign began with a prolonged naval bombardment, before landings began on 25 April. However, the well-prepared Turkish defences proved much more formidable than expected and by January 1916 the campaign was abandoned. Over 36,000 ANZAC troops had been lost.



A color photograph of a Lockheed Hudson aircraft in flight over a desert landscape. The aircraft is a twin-engine bomber with a high-wing configuration, seen from a low angle. In the background, the Great Pyramids of Giza are visible under a clear sky. The foreground shows a sandy desert with some small structures and vegetation.

WARⁱⁿ **FOCUS**

THE SUN BOAT OF RA

Taken c. 1942

A Lockheed Hudson RAF reconnaissance bomber banks as it patrols in the Egyptian skies. Over 2,000 of the planes were originally purchased or leased from the USA, and had to be converted for military use – they had formerly been used as commercial airliners. The Hudson was primarily used for scouting and anti-submarine missions by the British. On 27 August 1941, a No.269 Hudson flying from Iceland became the first aircraft to capture a U-boat, U-570, which surrendered after a prolonged attack from the aircraft.





Frontline

FIGHTER PLANES

Over 100 years of aerial combat has produced some of the most impressive and effective military technology

F-22 RAPTOR 1996

Country: **USA**

A SPEED FREAK WITH AN ARSENAL TO MATCH

This current generation of fighter aircraft is only operated by the United States Air Force – no other nation can purchase the plane under Federal law. Designed to operate as a stealth attack aircraft, the F-22 has seen action in the Gulf and is capable of achieving incredible speeds of around 1,500mph.



VICKERS FB 1914

Country: **UK**

THE UK'S FIRST FIGHTER PLANE

The Vickers was the first purpose-built fighter plane to be produced and was part of the world's first official fighter squadron. It came with two seats, a .303 Lewis gun and interestingly enough was only capable of speeds of around 70mph when at altitude.



POLIKARPOV I-15 1934

Country: **Soviet Union**

THE BACKBONE OF THE EARLY SOVIET AIR FORCE

The I-15 was used extensively from the 1930s to the mid-1940s by a selection of different nations. Flown by the Republicans during the Spanish Civil War, it remained in active service for many years, but was relegated to a ground-attack plane by 1941.



MESSERSCHMITT BF 109 1935

Country: **Germany**

**NAZI GERMANY'S ALL-CONQUERING
TECHNICAL MARVEL**

Perhaps the most-feared aircraft of the Second World War, the Bf 109 was the scourge of the skies on the Western Front. Early versions actually saw action during the Spanish Civil War, and over 30,000 had been produced by the end of the European theatre in 1945.



F-16 FIGHTING FALCON 1975

Country: **USA**

AMERICA'S MULTI-PURPOSE KILLER BIRD OF PREY

Used by a multitude of nations, the F-16 became one of the most widely deployed attack aircraft in the final decades of the 20th Century. The fighter has enjoyed varying military applications since its inception, and carries with it a fearsome arsenal for engaging targets at sea, on land or in dogfights.

SOPWITH CAMEL 1916

Country: **UK**

AN ICON OF THE SKIES OVER WWI EUROPE

A staple of the Royal Flying Corps during the First World War, the Sopwith Camel is perhaps the best-known aircraft of that era. Credited with a large number of confirmed kills, it became the most-prolific aircraft in Britain's arsenal, despite claims it was extremely difficult to fly.



TORNADO 1979

Country: **UK**

STURDY BRITISH ENGINEERING AT ITS BEST

The Tornado was designed with both reconnaissance functionality and combat versatility in mind, with an array of features that enable it to perform effectively in all weather conditions, whether during the day or at night. It has seen action all over the world, notably during the First Gulf War.

5 Facts about FIGHTER PLANES

HESS TAKES FLIGHT

In 1941, deputy Führer Rudolph Hess hopped into a Bf 110 and flew to Scotland in an apparent attempt to open talks with Great Britain. The tail-end of his aircraft is on display at the Imperial War Museum.

DEATH FROM ABOVE

The monstrous GAU-8 cannon utilised by the A-10 Warthog generates so much recoil that if it weren't mounted off-centre it would actually pull the plane off course while firing.

WINGING IT

In 1983 an Israeli pilot actually managed to land his F-15 despite it only having one wing. Apparently he was unaware of the extent of the damage that had been done to his plane.

OUTNUMBERED AND OUTGUNNED

During the Second World War, an American P-51 fighter managed to hold off around 30 German fighters that were attempting to down a flight of B-17s. This lasted for over half an hour.

THE PLANE OF THE FUTURE

The Eurofighter Typhoon attack aircraft is so advanced that it requires a series of computers to keep it airborne – a human being cannot pilot the Typhoon without their support.

The Eurofighter Typhoon can reach a maximum velocity of Mach 2.0



FIGHTER ACES

In the fierce battlefields among the clouds, only the most skilled, intuitive and fearless pilots emerged victorious

MANFRED VON RICHTHOFEN

THE WORLD'S MOST INFAMOUS AVIATOR

Years active: 1911-1918

Victories: 80

Regiment/Force: *Luftstreitkräfte*

Many will know Richthofen by his enduring moniker, 'The Red Baron', and his accomplishments in the air that still resonate today. This is a man that downed 22 enemy planes in the space of one month in 1917, and crafted for himself a fearsome reputation that spread fear among rival air forces of the time.

Born in Germany to a prominent aristocratic family, Richthofen spent his formative years serving as a military cadet, joining a cavalry unit after coming of age. When the war broke out, Richthofen was required to participate down on the brutal, bloody frontline as a cavalry reconnaissance officer. It wasn't long before

he found himself in the air where he belonged, and after time spent as an observer – during which he still reportedly downed an enemy aircraft with a machine gun – he began to make a name for himself as the first real flying ace. He eventually earned around 80 aerial victories by his death.

The Fokker Dreidecker was a formidable machine in the early era of the dogfight



LYDIA LITVYAK

SAT BEHIND THE CONTROLS OF A YAK-1 WITH THE WEIGHT OF THE WORLD ON HER SHOULDERS, LYDIA LITVYAK BROKE ALL THE RULES

Years active: 1941-1943

Victories: 11

Regiment/Force: *Soviet Air Forces*

Following Germany's decision to attack the Soviet Union in 1941, Lydia Litvyak tried to join the military in the hope of becoming a pilot. She was denied her request, yet was undeterred. After lying about how many hours in the air she had chalked up, she was accepted into the 568th Fighter Regiment, which was formed entirely of female pilots. Despite the decidedly dishonest approach, her determination was representative of a generation of people that would happily put themselves in danger in order to defend their country.

After being accepted into the unit, Litvyak began her arduous training in the cockpit of a Soviet Yak-1, and in the summer of 1942 embarked on her first combat mission. It was the first of many, and by the time of her death Lydia Litvyak had 11 confirmed victories to her name, much to the dismay of the surviving

German pilots that she downed. She earned her first kills in the skies way above the maelstrom at Stalingrad in 1942, becoming the first female pilot to achieve a confirmed kill.

She's an enduring figure of military history – a person that at that time went against what was expected of her as a woman, and excelled fully where hundreds of her male counterparts failed. As a pilot she achieved what most could only dream of, and as a woman she bucked any prejudices that she faced and arguably outshone the rest of the Soviet Air Force. She also remains one of only two solo female aces, along with her friend Katya Budanova.

Litvyak's fate is unclear – many people claim that she was killed in 1943, yet modern research into her loss hints at her having been captured by the Nazis and sent to a PoW camp. There is even evidence to suggest that she survived the war and moved to Switzerland, where she raised a family. Certainly, she was shot down – supposedly during the infamous Battle of Kursk.





RENÉ PAUL FONCK

THE RURAL BOY WHO JUST WANTED TO BE AN ENGINEER

Years active: **1914-1918**

Victories: **75**

Regiment/Force: **Armée de l'Air**

Born in north-eastern France in the late 19th Century, Fonck was originally rejected from flying duty and instead assigned to the combat engineers when he was conscripted. However, in 1915, Fonck was accepted for flight training, and before long he was terrorising the Germans in the skies above Europe, claiming his first victory in 1916.

As he began to participate in various combat missions against Germany, Fonck put his prior knowledge – he'd received his education in engineering – to good use in the air, demonstrating a thorough understanding of aircraft capabilities and a tremendous eye for shooting. Fonck's deadly precision when firing resulted in a kill tally of 75 confirmed, making him among the highest scoring pilots of the First World War and earning him a solid reputation as a deadeye that endures to this day.

ERICH ALFRED HARTMANN

THE MAN WITH THE MOST AERIAL KILLS OF ALL TIME

Years active: **1940-1945**

Victories: **352**

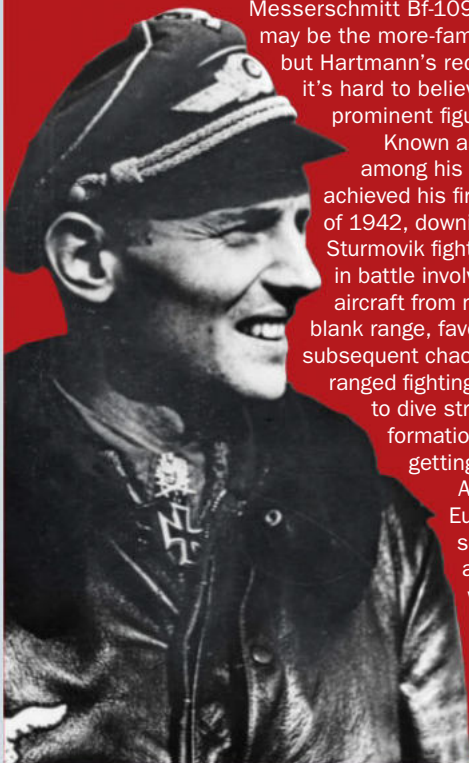
Regiment/Force: **Luftwaffe**

Some records are so impeccable that they're unlikely to ever be broken, no matter how much time passes. Hartmann's record is one of these, having scored an enormous 352 victories over Soviet and American pilots during the Second World War while flying his

Messerschmitt Bf-109. Baron von Richthofen may be the more-famous German pilot ace, but Hartmann's record is so astounding it's hard to believe he isn't a more prominent figure.

Known as 'The Black Devil' among his enemies, Hartmann achieved his first victory in the winter of 1942, downing a Russian IL-2 Sturmovik fighter-bomber. His tactics in battle involved attacking enemy aircraft from near enough point-blank range, favouring ambush and the subsequent chaos rather than longer-ranged fighting – he was even known to dive straight through enemy formations and delighted in getting up-close and personal.

At the end of the war in Europe, Hartmann and his squadron were captured and Hartmann himself was falsely convicted of war crimes by the Russians, eventually spending ten years in captivity. He died peacefully in 1993.



JALIL ZANDI

THE HIGHEST SCORING PILOT TO HAVE FLOWN THE F-14 TOMCAT

Years active: **1970-2001**

Victories: **11**

Regiment/Force: **Islamic Republic of Iran Air Force**

The preferred air superiority fighter of the USA for many years, the F-14 Tomcat had an amazing record of service, with several of the jets sold to Iran when US-Iran tensions were low. As the Iran-Iraq war broke out in 1980, the Iraqis were fielding around 600 air-ready jet fighters to conduct air-to-air combat and provide ground support, including MiGs and Su-22s.

Jalil Zandi has been credited with 11 total victories over this



fearsome opposition, all scored in an F-14 Tomcat, making him the most successful combat pilot in the history of the aircraft. Despite this, however, he was sent to prison for allegedly being disloyal to the Iranian regime, but was soon freed at the behest of his superiors. Zandi died in 2001 but will live on as one of only a small handful of modern jet aces.

JOSEPH MCCONNELL JR

A HERO OVER KOREA AND STILL THE HIGHEST-SCORING AMERICAN JET PILOT

Years active: **1942-1954**

Victories: **16**

Regiment/Force: **USAF**

After scoring his first victory on 14 January 1953, McConnell found himself an ace only a month later following his fifth victory over a MiG-15. He is known to have flown three different F-86 Sabres throughout his military career – each one named 'Beauteous Butch' (his wife's nickname was Butch) – and scored a total of 16 victories during the Korean War in the early 1950s.

It's amazing that a record set in the 1950s still stands today – no other American jet pilot has downed as many planes

in the history of jet-powered aviation, even with all of the advances in technology that have shaped modern air forces today. McConnell was unfortunately killed during a training exercise back on home soil while testing an F-86H, yet his memory lives on as the first and foremost of history's heroes of jet aviation.



WILLIAM AVERY BISHOP

THE BRITISH EMPIRE'S HIGHEST-SCORING PILOT

Years active: **1915-1918**

Victories: **70**

Regiment/Force: **Royal Flying Corps**

Ontario-born William Bishop landed in England in 1915 as a member of the 14th Battalion, Canadian Mounted Rifles. After serving in the trenches, waiting for an available space in the Royal Flying Corps' training program, he eventually transferred as an observer. Seated in the two-man R.E.7 reconnaissance aircraft, armed with only a single machine gun and a camera, Bishop served as an observer on the front lines for four months, before injury and illness saw him return to Canada.

His military career could easily have ended

there without note, but after returning to England in 1916 he entered flight training and the next year entered his first dogfight and was promoted to Flight

Commander. During WWI he clocked up over 70 confirmed enemies downed, and was heralded in his native Canada as a hero.



ANATOMY OF A... SPITFIRE

STICK AND CONSOLE

As with all aircraft, the console enabled the pilot to monitor their air speed, altitude, fuel levels and more. Fuel was a particularly important concern, as levels were kept fairly low so as to not impinge on the plane's speed or agility. Early models could only last 15 minutes of combat before having to return to base.

To this day the Spitfire is known across the globe as both a formidable weapon and a symbol of Britain's triumph in the skies

ROLLS-ROYCE MERLIN ENGINE

This is where the power lay, and what many credit for boosting the Spitfire above its competition – the supercharged engine. Having such strength underneath the hood gave the Spitfire the edge when it came to speed, and enabled incredible climbs without the risk of stalling.

NOSE AND PROPELLER

By the end of the Second World War the Spitfire had enjoyed 13 different propeller designs. Despite inconsistencies in the design, though, the spinner and propeller setup was adopted by default.

GLYCOL HEADER TANK

20MM CANNON

The two wing-mounted cannons were only equipped with 60 rounds each, meaning that the pilot had to be especially careful not to waste ammunition – 60 rounds was only enough for around 30 seconds of cumulative fire.

AIR INTAKE

METAL BODY

The main body of the aircraft was designed to be hardy, but also to only incur low drag for combat manoeuvres. A skeleton of compound frames made up the fuselage in what was quite a complicated design. It featured a skin that was part of the plane's structure, rather than just a covering.

DRUM MAGAZINE

SUPERMARINE SPITFIRE

YEARS IN USE: 23

COUNTRY OF ORIGIN: GREAT BRITAIN

ENGINE SIZE: 1,470HP

WEIGHT: 2,300KG (LOADED)

LENGTH: 9.12M

TOP SPEED: 362MPH

WEAPONS: 2X 20MM CANNON, 4X .303 MACHINE GUNS

AERIAL MAST**COCKPIT AND CANOPY**

Many pilots have spoken about being 'buried in a Spitfire', as being inside the cockpit is like falling into the bowels of the machine. The canopy was fixed and made of acrylic to offer the pilot a clear view of their surroundings. Earlier aircraft had employed glass panels for the cockpits, but these were more cumbersome and added extra weight to the plane.

HIGH-FREQUENCY TRANSMITTER**RUDDER AND TAIL SECTION**

The Spitfire's central tail fin was longer than most, in order to provide more stability in the air when achieving the high speeds the aircraft was capable of. The rudder was stiff at high speeds, much like ailerons, requiring muscle to operate.

WIRELESS TRANSMITTER**TAIL WHEEL****THE FAMOUS INSIGNIA**

These rings are the symbol of the Royal Air Force, and are known collectively as an emblem, called a roundel. The RAF roundel originated in World War One and served to identify the aircraft as being British – essential when in a hectic combat scenario.

ELLIPTICAL WING DESIGN

The wings of the Spitfire were designed with practicality and aerial agility in mind. By adopting a unique shape, the plane's wings were able to house armament and the landing gear when retracted, without sacrificing any of its enviable aerodynamics.

WING FLAPS

Unlike certain other fighter planes of the era, the flaps on a Supermarine Spitfire were only capable of being fully up or fully down. Flaps were lowered on approach for landing, with closed flaps more suitable for combat manoeuvres.

RETRACTED LANDING GEAR**AILERONS**

As with most aircraft, the ailerons built into the wings were there to enable the aircraft to roll. Rolling has always been a key method of losing a pursuer in a dogfight, and combined with the Spitfire's high speed, the ailerons served as a strong line of defence against aggressors.

MACHINE GUN ARSENAL

Two .303 machine guns were mounted in each wing to support the heavier cannon fire, although again, ammunition was limited. Pilots were encouraged to fire in two- to three-second bursts to conserve rounds.

ICON OF THE SKIES

The Spitfire appeared at a crucial time. With the Luftwaffe running riot in the skies courtesy of Nazi Germany's early-war engineering efficiency, the Hawker Hurricane and P-40 were significantly lacking. The Spitfire changed the war, bringing with it exceptional power and manoeuvrability that outshone many of its contemporaries. It proved decisive in several key wartime sorties, racking up a raft of Luftwaffe kills and cementing itself as a far more popular and functional aircraft than the more-numerous Hawker Hurricane. Post-war it eventually served in different training roles until the 1950s – a testament to the joy of piloting it, its popularity as a machine, as well as its status as an emblem of power and respect.

Spitfires became iconic symbols in the Allied war effort – helping to defeat the previously untouchable Luftwaffe

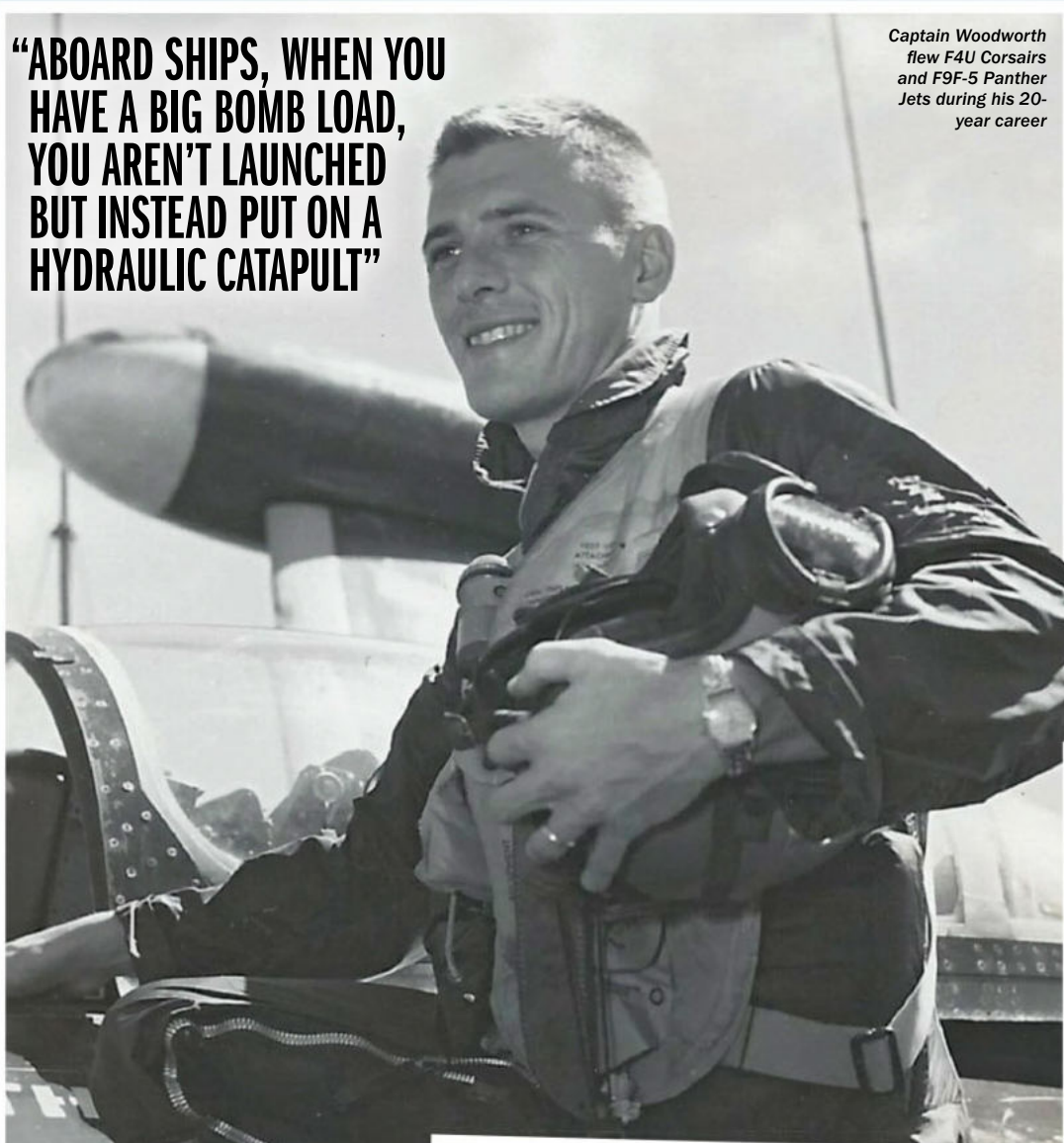


WAR IN THE SKIES OF KOREA

Korean War veteran Charles “Chuck” M Woodworth discusses his experiences in the air and the switch from propeller to jet engines

“ABOARD SHIPS, WHEN YOU HAVE A BIG BOMB LOAD, YOU AREN’T LAUNCHED BUT INSTEAD PUT ON A HYDRAULIC CATAPULT”

Captain Woodworth flew F4U Corsairs and F9F-5 Panther Jets during his 20-year career



Serving on the USS Philippine Sea, Captain Woodworth piloted F4U Corsairs in the danger and uncertainty of the Korean skies.

Here we speak with the US Navy veteran about MiG-15s, hydraulic launch catapults, his transition from propeller to jet power and even sneaking in an extra year of Navy service!

CAN YOU DESCRIBE THE FEELING OF BEING IN A KOREAN WAR-ERA FIGHTER PLANE?

Awesome! I flew an F4U Corsair and at the time it felt like being in the back of a big Cadillac. It was 13 feet [four metres] from your cockpit to the front with a 28,000hp engine and all sorts of guns and rockets at your disposal. It’s a massive machine. When the Korean War started I was going through flight training and I was selected to go in the Corsair in Korea.

WHAT WAS YOUR COMBAT ROLE?

I was in Strike Fighter Squadron 113 in airgroup 11 on the USS Philippine Sea. Technically we were fighters but actually we were more like attack-bombers because we didn’t have anybody to fight with! The western half of the Korean Peninsula was for the Air Force while the eastern half was for the Navy. The MiGs seldom came to bother the Navy.

WHAT WAS THE CORSAIR LIKE AS A MACHINE? WAS IT EASY TO HANDLE? DID IT BREAK DOWN MUCH?

They were very good planes, very reliable. They came out at the end of the Second World War and they were very dangerous then because they had what was called torque roll. The engines were so big on the Corsair that when you came in to land there was a chance you would do a flip and end up upside down. To stop this, they added one more blade to the propellers. Aboard ships, when you have a big bomb load, you aren’t launched but instead put on

The Corsair was an effective and capable fighter-bomber



Above: Strike Fighter Squadron 113 – Captain Woodworth is seen here third from the right on the front row

a hydraulic catapult. It was safer but could on occasion knock the electronics off and two or three times I lost my radio and had to communicate using just simple hand signals.

WHY DID YOU CHOOSE TO JOIN THE US NAVY INSTEAD OF THE AIR FORCE?

During World War II I was in high school and I graduated in 1943. In order to get into officer training, they provided a test. On the top of the paper on the first page you had to circle A for Army or N for Navy. I already had a mind to be in the Navy after seeing pictures of them in the war. So I took the test and ended up at flight training!

DID YOU EVER HAVE TO MAKE A HASTY LANDING ANYWHERE OR EVEN WORSE, A CRASH LANDING?

No. I was very lucky! I flew a lot of missions and had 34 years in the Navy but never had a crash landing. At times I've had very poor visibility and strong winds at sea where the deck was going up and down by 25-30ft [7.5-9m]. The most dangerous, I guess, was on the frontline but we didn't go there too often. The Army or Marines would call us in to drop napalm on targets.

YOU HAD TO MAKE THE TRANSITION FROM PROPELLER-POWERED PLANES TO JET PLANES - WHAT WAS THE DIFFERENCE LIKE?

I flew F9F-5 Panther Jets off the Philippine Sea in Korea but never saw combat in them as the armistice was about to be signed. After a couple of years of flying and instructing in jets, I started flying heavy attack bombers until I finished my career in the Navy and began working at the Pentagon.

DID YOU SERVE AFTER THE KOREAN WAR?

Yes, I continued after the war in the Navy. I flew a lot of carrier aircraft but didn't see combat again. I served in Vietnam as a commander and the targeting centre for B-52 bombers was in my office. The Navy was generally on the sidelines, though, as the Air Force took over the targeting facilities. I also worked in the Pentagon in strategic analysis and war gaming.

WHEN DID YOU LAST FLY?

Well I'm 89 years old so they won't let me fly any more! I got out of the navy in 1977 and 52 years old or 20 years of service is the maximum age and time you can fly in the navy. I sneaked in 21 before they caught me!

MISTAKING THE ENEMY

HOW FRIENDLY FIRE NEARLY DOWNED TWO US AIRCRAFT

"Half of Korea was for the Navy and half for the Air Force. The Air Force had a lot MiG activity and sent up F-86s to intercept them," Captain Woodworth. "One day I was out with about 35 planes and we were near the bomb line with a lot of flak hitting us. We were dropping napalm and bombs and then all of a sudden somebody shouted 'MiGs!' and 35 planes went to full power and charged our guns. We pointed them at two sleek silver planes coming out of the Sun, which we couldn't quite make out. As we got closer with our guns aimed directly at the two planes, somebody shouted, 'F-86s, hold your fire!' The poor guys from the Air Force didn't realise how close they were to being blasted out of the sky by a huge squadron of planes carrying 2,400 rounds in six .50 calibre machine guns. That was an exciting moment. I was ready to start shooting MiGs but there were none on that day."



The Soviet MiG-15 and US F86 Sabre helped usher in the era of jet fighters and were even similar in appearance

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HEAD TO HEAD

Only 11 years after the first ever powered flight, British, French and German pilots were engaged in a new type of warfare, flying their newly developed fighter planes in the French skies

GERMAN PILOT

DEUTSCHE LUFTSTREITKRÄFTE,
FOKKER DR.I

TRAINING

German pilots underwent three months of training before taking to the skies and were well drilled by the time they saw frontline service.

HANDLING

The extra wing gave the triplane good handling credentials and was much easier for beginner pilots to fly than the Camel.

WEAPONS

The MG08 machine gun was a dangerous weapon that was in military use on both the ground and up in the air until the 1960s.

TOP SPEED

The Fokker's top speed of 165km/h (103mph) meant it could outpace many enemy fighters in battle.

ENGINE

Flight was still in its early stages during the war, so the range was only 300km (186 miles) using an Oberursel air-cooled rotary engine.

TOTAL



“The Fokker DR.I was a Dreidecker triplane that struck fear into the hearts of the Royal Flying Corps and the Armée de l’Air”

FOKKER DR.I

The Fokker DR.I was a Dreidecker triplane that struck fear into the hearts of the Royal Flying Corps and the Armée de l’Air. In 1917, the year it was introduced, the German Luftstreitkräfte struck down over 200 enemy aircraft while only losing 66 of its own. This was down to the Germans’ superior Fokker and Albatros planes, which made mincemeat of the British Airco DH.2 and Factory F.E.8.

Unfortunately for the Germans, this jolted the RFC into action with the new Sopwith Camel Squadron. The most famous Fokker pilot was none other than The Red Baron, Manfred von Richthofen, who scored over 80 victories during the war.





BRITISH PILOT

ROYAL FLYING CORPS, SOPWITH CAMEL

TRAINING

A British pilot's training would only take 30 hours as pilots were rushed into the war in the early days of aviation.

TOP SPEED

A top speed of 185km/h (115mph) ensured the biplane could chase down the enemy Fokkers and the Albatros D.III in a dogfight.

HANDLING

Notoriously tricky to handle, the Sopwith was one of the best when flown by an experienced pilot, but tricky for a rookie.

ENGINE

The 130-horsepower Clerget 9B 9-cylinder rotary engine gave the Camel a range of 485km, which meant it could do battle for longer.

WEAPONS

The Sopwith Camel had twin 30-calibre Vickers machine guns fitted to blast down the opposition over the Western Front.

TOTAL



“One of the best British fighter aces in the war was Albert Ball who downed 45 enemy planes”



SOPWITH F-1 CAMEL

By 1917, the German airforce was in a dominant position in the battle over the skies of France. New fighters such as the Albatros D.III and the Fokker E.I had outclassed the obsolete British and French fighters in what was to be known as the 'Fokker Scourge'.

The Triple Entente fought back with a new fleet of aircraft including the Sopwith Camel, which boasted increased firepower and manoeuvrability that could match their German rivals. One of the best British fighter aces in the war was Albert Ball who downed 45 enemy planes and was awarded the Victoria Cross for his efforts.



Frontline

FIGHTER PLANES OF THE WORLD

We salute the most-iconic fighters from around the globe

1 LARGEST EVER DOGFIGHT

SYRIA 9 JUNE 1982

Nearly 200 fighter jets from Israel and Syria take to the skies and become embroiled in the largest air battle of all time. 80 Syrian planes are shot down.



Curtiss P-40

Produced: 1938

Speciality: **Air superiority and ground attack**
Location: **USA**



JAS 39 Gripen

Produced: 1988

Speciality: **Strikes and recon**
Location: **Sweden**



VL Myrsky

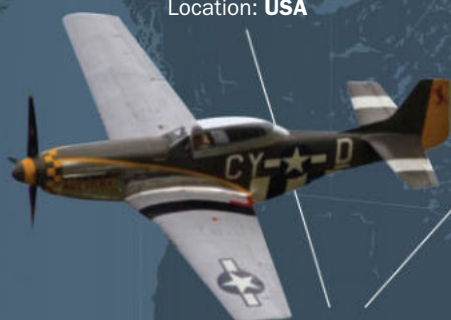
Produced: 1941

Speciality: **Combat manoeuvres**
Location: **Finland**

P-51 Mustang

Produced: 1941

Speciality: **High-speed attack fighter**
Location: **USA**



AV-8B Harrier II

Produced: 1978

Speciality: **V/STOL strike aircraft**
Location: **United Kingdom**



Dassault Mirage

Produced: 1967

Speciality: **Ground attack fighter**
Location: **France**

F-14 Tomcat

Produced: 1969

Speciality: **Long-range interceptor**
Location: **USA**



Fiat CR.42

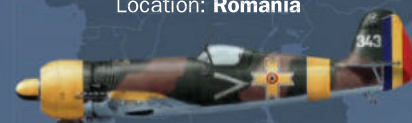
Produced: 1938

Speciality: **Single-seat biplane**
Location: **Italy**

IAR 80

Produced: 1941

Speciality: **Ground attack aircraft**
Location: **Romania**



F2H Banshee

Produced: 1947

Speciality: **Carrier-based jet fighter**
Location: **USA**



Atlas Cheetah

Produced: 1986

Speciality: **All-round strike aircraft**
Location: **South Africa**



2 RAIDING OCCUPIED FRANCE

DIEPPE, FRANCE 19 AUGUST 1942

As part of a major Allied counter-offensive into occupied France, 74 aerial squadrons support ground troops during the Dieppe Raid. It's a failure, with scores of Spitfires and Hurricanes lost.

3 SOVIET AIR SUPERIORITY

NORTH KOREA 12 APRIL 1951

Three squadrons of MiGs attack a flight of American B-29s in the midst of the Korean War without any Soviet losses. An embarrassed USAF christens the event Black Thursday.



MiG-29

Produced: **1977**

Speciality: **Short-range dogfighter**

Location: **Soviet Union**



HESA Saeqeh

Produced: **2004**

Speciality: **Air battles and bombing runs**

Location: **Iran**

7

Shenyang J-11

Produced: **1998**

Speciality: **Air superiority fighter**

Location: **China**



4 BRITISH HARRIERS ATTACK

FALKLAND ISLANDS 5 MAY 1982

Three Sea Harriers from HMS Hermes launch a key attack on the Argentine airfield at Goose Green on the Falkland Islands with cluster bombs and 1,000lb bombs. One aircraft is lost to anti-aircraft fire.

Ford Island was the epicentre of the Pearl Harbor attack



5 JAPAN STRIKES THE US

HAWAII 7 DECEMBER 1941

The Imperial Japanese Navy launches a surprise aerial attack on the US naval base at Pearl Harbor, sinking four Navy battleships and directly pressuring the US into intervening in the Second World War.

6 WWI AIR BATTLE

ST. MIHIEL, EASTERN FRANCE

12 SEPTEMBER 1918

British and French planes take to the skies over France to engage Germany in one of the first major air-to-air battles of all time.

Mitsubishi A6M Zero

Produced: **1939**

Speciality: **Long-range dogfighter**

Location: **Japan**



7 CIVILIANS UNDER FIRE

ZHONGSHAN, CHINA

24 AUGUST 1938

A Douglas DC-2, the Kweilin, is shot down over China by Japanese aircraft. There are three survivors of what is considered the first instance of a civilian liner being downed by a fighter plane.

8 DESERT STORM

IRAQ 17 JANUARY 1991

The first air-to-air victories of the First Gulf War are achieved. Two patrolling American F-15s shoot down and destroy two enemy Iraqi-operated MiG-29s. This is one of the first actions of Operation Desert Storm.



The Gulf War Allies send hundreds of planes into Iraq

ANTI-AIRCRAFT WEAPONS

Get to grips with the weaponry that has been the scourge of aircraft since military aviation began

As the First World War rumbled on, aircraft and airships became a major part of warfare. The devastating effects of aerial reconnaissance, dogfighting and air raids meant a new wave of anti-aircraft weaponry was essential. The first anti-aircraft guns were no more than long-range machine guns, but as time progressed, more-advanced projectiles were fashioned to bring down groups of bombers and fighters. In modern warfare, anti-aircraft weaponry is still essential and with the advent of missile and laser defences, even stealth aircraft can now be brought down from the skies.

QF 3 INCH 20 CWT

Developer: United Kingdom

Era: 1914-1946

Projectile: 76.2 mm shells

Range: 4,900m (16,000ft)

The first weapon to be produced solely for anti-aircraft purposes, (prior to this gun, simple converted field and coastal guns were used) the QF 3 was a turning point in anti-aircraft technology.

Mounted on trucks, ships and emplacements, the gun proved effective both in mainland Europe and back home in Britain. It was so useful that it saw action in World War II as well.



S-75 DVINA

Developer: USSR

Era: 1957-present

Warhead: SAM missile with continuous fragmentation warhead

Range: 30km (19 mi)

Famous for shooting down Francis Gary Powers in his U-2 spy plane, the S-75 is the most widely distributed missile system in the world and helped usher through the age of missile defence. It uses a hi-tech guideline system and if the Cold War had got nastier, it could have easily blasted a B-52 bomber out of the sky.

S-75s are used by over 30 countries and are responsible for the downing of more American aircraft than any other missile.

RAPIER

Developer: United Kingdom **Era:** 1971-present

Warhead: MK-2 Fragmentation missile **Range:** 8.2km (5.1 miles)

One of the most technologically advanced anti-aircraft systems in existence; the Rapier is a portable all-weather guided weapon system. Capable of targeting two aircraft at once, its range is shorter than most modern systems but it makes up for this with the sheer power of its supersonic Mach 2 missiles and its laser blindfire tracking radar.



FLAK GUN

Developer: Nazi Germany

Era: 1936-1945

Projectile: 88mm shells

Range: 14,860m (48,753ft)

Coming in various sizes, the Flak ranged from 20mm to 128mm versions. These huge cannons were secretly constructed in the inter-war period and proved to be very effective in the defence of the Third Reich against the Allied onslaught. Light and with a rapid rate of fire, they were installed to protect important sites and outposts – a variant was even used to equip the formidable Tiger II tank.

FLAK BELTS

By 1942, 15,000 guns in 20km- (12mi-) thick defensive 'belts' of Flak protected occupied Europe.



CREW

88mm Flak guns required four men, while the larger 128mm armaments were run by a whole company of Wehrmacht soldiers.



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CHURCHILL'S

SECRET ARMY

In history's darkest hour, the Special Operations Executive not only inspired resistance movements all over the world, but also played a pivotal role in stopping the Axis war machine...

WORDS NICK SOLDINGER



Above: Agents assigned to Operation Jedburgh receive instruction from an SOE briefing officer

Occupied France, September 1943. As an express train clatters through the countryside, a British spy codenamed White Rabbit enters the dining car. It's mid-afternoon and the car's spilling over with French civilians, German soldiers, and SS men. It's a risk but the spy, who's headed to Paris to meet resistance chiefs, hasn't eaten since breakfast. Even when the waiter tells him there are no seats, his hunger overwhelms his fear. He presses a banknote into the waiter's hand and asks him, in faultless French, to look again.

Moments later the spy is being led down the carriage to its only spare seat. Approaching it through a swirl of cigarette smoke, he falters. The table he's being led to is crammed with high-ranking Nazi officers. Turning back, he realises, will arouse suspicions. He'll have to bluff it out. So he sits, heart pounding, and shakes his napkin out. When he looks up at his fellow diners, though, he realises just how far he's crawled into the monster's mouth.

Sitting opposite him is Nikolaus 'Klaus' Barbie, the so-called Butcher of Lyon. The White Rabbit is about to dine with not only the most ruthless Gestapo chief in the whole of France, but the man who's been hunting him for almost six months...

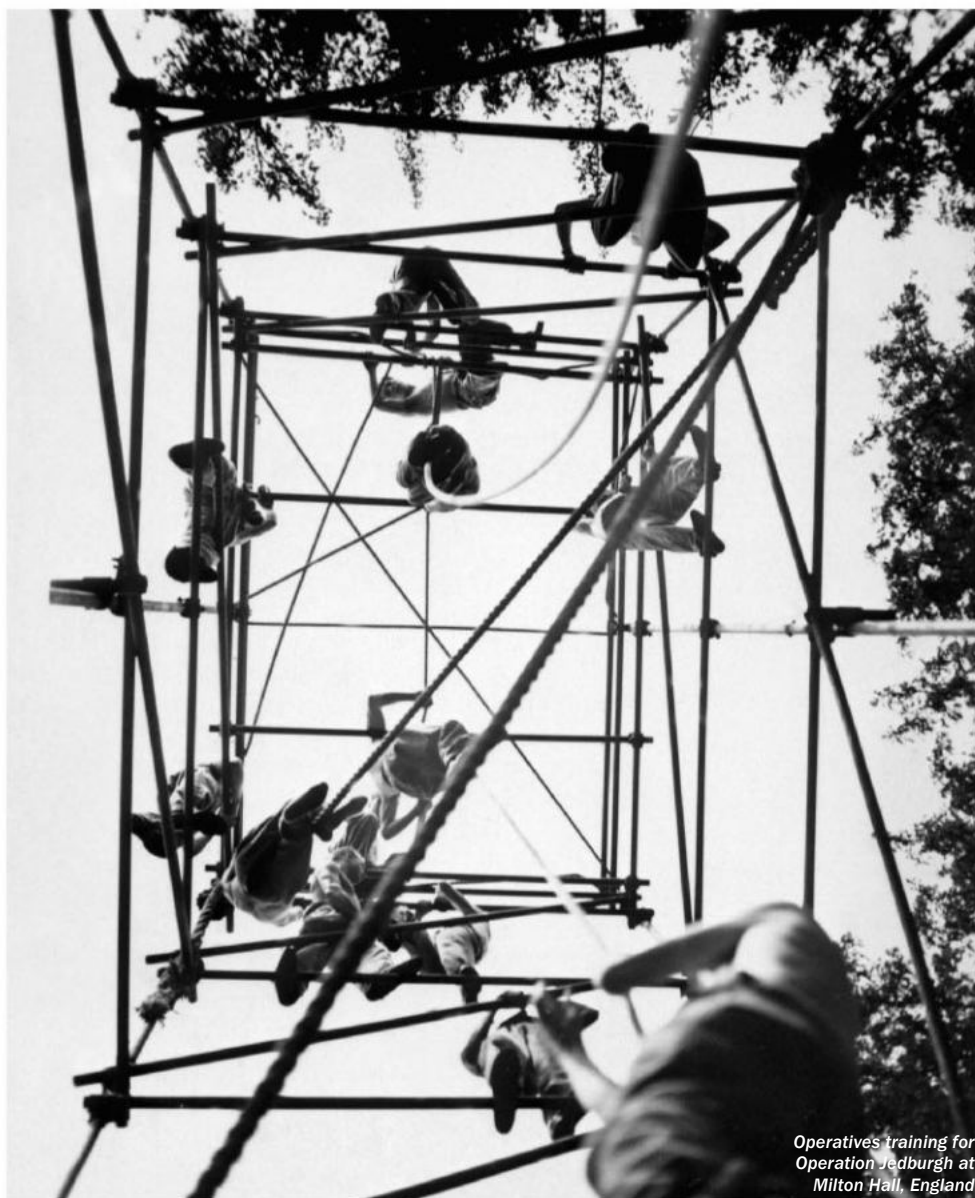
This sounds like the start of a James Bond novel, and with good reason. White Rabbit's

real name was Forest Yeo-Thomas, and his escapades – like this encounter with the ruthless Barbie – were so extraordinary that some now believe he was the inspiration for Ian Fleming's 007. But there was nothing fictitious about his exploits, or the 13,000 other agents who also served in the Special Operations Executive (SOE) during the Second World War.

Although details of their clandestine crusade would remain hidden from the public for decades, it's no exaggeration to say that without this secret army of saboteurs and assassins, the Allies might well have lost the war. By VE Day, the SOE had not only hampered Japanese operations throughout Asia, but paved the way for the D-Day landings, and most significantly smashed Hitler's hopes of developing the world's first nuclear weapon. Theirs was an extraordinary story. One that began in the entirely ordinary surroundings of a London office block five years earlier.

By July 1940, with its expeditionary force booted out of Europe, and the swastika fluttering over its allies' capitals, Britain stood alone. The mood in the country was apprehensive but defiant. Nobody embodied this better than Britain's new prime minister, Winston Churchill, and he was eager to take the fight back to the enemy.

“THE WHITE RABBIT IS ABOUT TO DINE WITH NOT ONLY THE MOST RUTHLESS GESTAPO CHIEF IN THE WHOLE OF FRANCE, BUT THE MAN WHO'S BEEN HUNTING HIM FOR ALMOST SIX MONTHS...”



Operatives training for Operation Jedburgh at Milton Hall, England

“CHURCHILL KNEW ALL ABOUT THE POWER OF GUERRILLA WARFARE – HE’D BEEN ON THE WRONG END OF IT TWICE... HE NOW ORDERED THE SOE TO ‘SET EUROPE ABLAZE!’”

One of his first acts as PM was to create the SOE – a covert organisation that would encourage widespread revolt in the occupied countries via a co-ordinated campaign of resistance. Churchill knew all about the power of guerrilla warfare – he’d been on the wrong end of it twice. First as a combatant in the Boer War, and then again as a government minister during the Irish War of Independence. He’d also been friends with perhaps the greatest guerrilla commander ever – Lawrence of Arabia, whose brilliant war against the Turks in the Middle East had brought down the Ottoman Empire. With these influences in mind, he now ordered the SOE to “set Europe ablaze!”

The Baker Street Irregulars

Within weeks, SOE’s HQ was established at 64 Baker Street in London. Behind its anonymous grey walls its founders set about recruiting, training and equipping agents who came to be known as the Baker Street Irregulars. From its inception, the SOE was split into two distinct divisions: one that dealt with recruitment, training and operations, and the other with support.

Recruitment to SOE was as unorthodox as the organisation itself. Because of its top-secret nature, it couldn’t advertise for spies. Instead, candidates were sourced through methods ranging from word-of-mouth recommendation to recruiters studying lists of people who’d sent in correct solutions to the *Daily Telegraph*’s notoriously tricky crossword.

Potential recruits were then invited for an interview at a hotel near Trafalgar Square. Here, in a sparsely furnished room, they’d face a cryptic line of questioning during which the interviewer would suddenly switch to speaking either German or French. Anyone who became flustered or couldn’t respond was immediately asked to leave.

Specialist training

Obviously, being fluent in the language of the country an agent was expected to operate in was crucial, as was having a good understanding of its culture. Potential agents were quizzed about their background and what motivated them. Then it’d be down to the recruiter’s judgement whether the wannabe spy had ‘it’. ‘It’ being a unique kind of courage and

FOUNDERS OF THE SOE

IT MAY HAVE BEEN ESSENTIALLY A MILITARY ORGANISATION, BUT SOE WAS CREATED AND MANAGED BY POLITICIANS

WINSTON CHURCHILL, BRITISH PRIME MINISTER
YEARS ACTIVE: 1940-45



Churchill’s years as a soldier, politician and journalist meant he was well prepared to lead Britain through a war it was ill-equipped to win. The SOE was typical of the imaginative, often eccentric, schemes he green-lit. In its darkest hour, Britain became a place where all voices came to be valued. Oddballs, boffins and outsiders all thrived under his leadership.

GLADWYN JEBB, HEAD OF THE SOE
YEARS ACTIVE: 1940-45



A career diplomat, Jebb was appointed SOE chief because of his background working with both the Foreign Office and MI6. Jebb also had first-hand experience of life under Fascist rule, having been Britain’s ambassador to Rome during the earliest days of the Mussolini regime. After the war, he helped draft the UN’s first charter and became its first Secretary General.

HUGH DALTON, MINISTER OF ECONOMIC WARFARE
YEARS ACTIVE: 1940-42

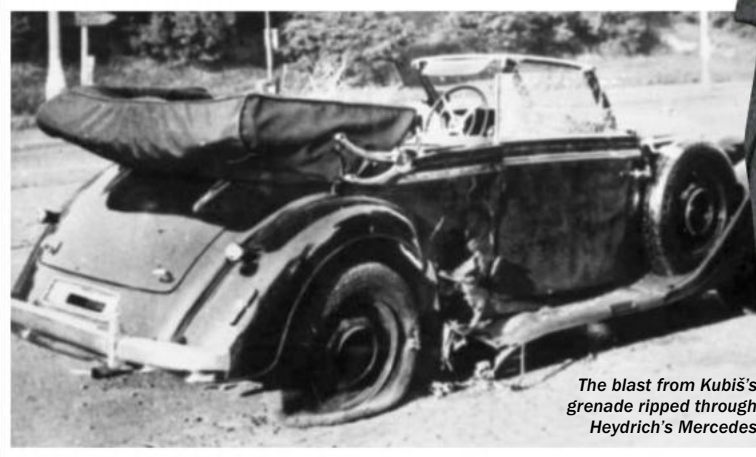


Dalton was given political responsibility for the SOE when it was formed. A decorated veteran of 1917’s Battle of Caporetto, when the Italian front had collapsed under a ferocious Austro-German assault, he had direct experience of fighting against overwhelming odds. He was also a brilliant economist who saw both the financial and tactical sense of creating a low-maintenance guerrilla army.

Described by Hitler as "the man with the iron heart" Heydrich was feared throughout Czechoslovakia for his brutal repressive measures



Heydrich's assassins fled to Cyril and Methodius Church in Prague, where in this catacomb they killed themselves to avoid capture



The blast from Kubiš's grenade ripped through Heydrich's Mercedes

OPERATION ANTHROPOID

27 MAY 1942 ✪ PRAGUE, PROTECTORATE OF BOHEMIA

A HIGHLY RISKY PLAN IS DEVISED TO ASSASSINATE THE HATED NAZI GOVERNOR OF BOHEMIA, REINHARD HEYDRICH...

Having been abandoned by her allies at the Munich Conference, which had legitimised Hitler's occupation of the country in 1938, Czechoslovakia had been all but subjugated by the brutal Nazi regime by the time the war started. Initially resistance was scant – something the exiled Czech government was keen to change. The SOE devised something to inspire Czechs to stand up for themselves. What they came up with was both dramatic and dangerous – the assassination of the region's ruler, Reinhard Heydrich.

In May 1942 two exiled Czech agents, Jozef Gabčík and Jan Kubiš, parachuted back into their

homeland. In Prague, 27 May, as Heydrich was being driven to work in his open-topped Mercedes, the pair ambushed him. As his car rounded a corner, Gabčík stepped into the street with a Sten gun and squeezed the trigger, but the weapon jammed. The car screeched to a halt and Heydrich stood up, scrambling for his side arm. Before he could shoot, though, Kubiš threw a grenade at the car. Shrapnel from the blast ripped through the car's body, mortally wounding the Nazi chief.

The two agents escaped – but only temporarily. They were later discovered in a nearby church and, after a six-hour gun battle, took their own lives

Right: Jan Kubiš was trained in Britain for the operation in Prague



rather than be captured. Nazi retribution for the assassination was horrific. Two nearby villages, Lidice and Ležáky, were falsely linked to the assassins so were flattened and their 500-plus inhabitants murdered. The assassination and subsequent atrocity, however, had the desired effect. The outraged Czechoslovakian population began fighting back against the Nazis in earnest.

resourcefulness that suggested they'd be able to operate alone, deep in hostile territory, and in constant fear for their life.

After selection, recruits were trained at a series of secret locations throughout Britain. These included requisitioned country houses, factories, hotels, and even the National History Museum where – among other things – agents learned how to pack camel dung, supplied by London Zoo, with plastic explosives.

The training schools represented three stages of preparation for life behind enemy lines. The so-called 'A Schools' were essentially paramilitary academies. Here, over a span of five weeks, agents studied martial arts, weapons handling, demolitions, map reading, Morse code and field craft, all against a backdrop of intense physical exercise.

Once they'd passed this stage, agents had to undergo specialist training at one of the SOE's 'B Schools'. Initially, all agents undertook parachute training at what is now Manchester Airport. Parachuting was still in its infancy during the 1940s, and the type taught to SOE operatives was extremely hazardous. Because the planes they dropped from had to come in low to avoid detection by radar, agents were trained to jump 'blind' – namely at night with little idea of the area they were launching themselves into. Jumps were typically from around 300 feet and lasted just 15 seconds. Agents then had to land in such a way that the shovel strapped to their thigh – which was brought to bury the 'chute – didn't break their leg. Fatalities weren't unknown at this stage.

If recruits got through jump school unscathed, they then moved onto lessons with subjects such as personal security, maintaining a cover story and how to act while under police surveillance. Agents were even taught how to break into properties, crack safes and pick locks. These were all skills that, in many cases, were passed on to them by ex-cons who'd been given reprieves in exchange for helping the war effort with their knowledge.

The final stage of training was at the SOE Finishing School at Beaulieu in Hampshire, where agents were taught acting and surveillance skills. Here each would be given their cover story, before being schooled in the use of costume and disguises. The agents were then assessed in 'schemes' lasting 48 to 72 hours – effectively dress rehearsals designed to test their resilience and that of their cover story. The ability to bluff convincingly was seen as key to their survival.

Below: Radio operators were essential to connecting the network of agents spread throughout occupied Europe



SPECIAL OPERATIONS AROUND THE GLOBE

THE SOE CO-ORDINATED A WIDESPREAD CAMPAIGN OF RESISTANCE. THE POWER OF GUERRILLA WARFARE WOULD BE FELT BY THEIR ENEMIES WORLDWIDE

OPERATION CARTHAGE

1945 DENMARK

SOE intelligence helps a successful RAF raid on the Gestapo HQ in the heart of Copenhagen. Records are destroyed and several key Danish resistance members escape.

OPERATION TEMPEST

1944 POLAND

SOE agents are dropped to help the Polish uprising in Warsaw. After a bitter six-week battle, it's crushed, partly because Stalin refuses to let the Poles be resupplied from Soviet territory.

OPERATION TYPICAL

1943 YUGOSLAVIA

Having initially backed the royalist Chetniks, Churchill switches support to Tito's Communists because they are "killing more Germans". This mission sees SOE agents dropped in to co-ordinate operations with the Communist forces.



OPERATION FALAISE

1942 MOROCCO

To monitor Allied shipping in the Mediterranean, the Germans set up an observation station in Tangier equipped with advanced night observation equipment. SOE agents blow this station up after four months.

OPERATION POSTMASTER

1942 GULF OF GUINEA

When three Axis ships suspected of transporting arms dock at the Spanish-owned island of Fernando Po, off the Nigerian coast, an SOE-organised raiding party boards and hijacks them.

OPERATION JAYWICK

1943 ♣ SINGAPORE

EUROPE MAY HAVE BEEN THE PRIMARY THEATRE OF ITS OPERATIONS, BUT SOE'S GUERRILLA TACTICS WERE EQUALLY EFFECTIVE IN THE FAR EAST

One of SOE's more-astounding operations was carried out by a team of 14 agents led by Captain Ivan Lyon. The British army officer had escaped to Australia after Singapore had fallen to the Japanese, and he was determined to hit back.

In August 1943, Lyon and his Anglo-Australian force set sail from Australia in a captured Japanese fishing boat and headed back to Singapore. The epic three-week voyage took the team through 2,000 miles of Japanese-controlled seas, until they reached a small island off the coast of Singapore. From here, on the evening of 26 September, the team crept across the channel to Singapore Harbour in three kayaks, attached a string of limpet mines to Japanese vessels in the port, before slipping away again undetected. Around 50,000 tonnes of Japanese shipping was destroyed that night. Lyon was killed while attempting a similar raid a year later.



Singapore Harbour is seen here from afar, pictured in 1941

MISSION 101

1941 ABYSSINIA

Accompanied by Emperor Haile Selassie, Colonel Orde Wingate (later leader of the Chindit special forces in Burma) leads Assyrian and Sudanese troops against the Italians and liberates Addis Ababar.



OPERATION REMORSE

1940-45 HONG KONG

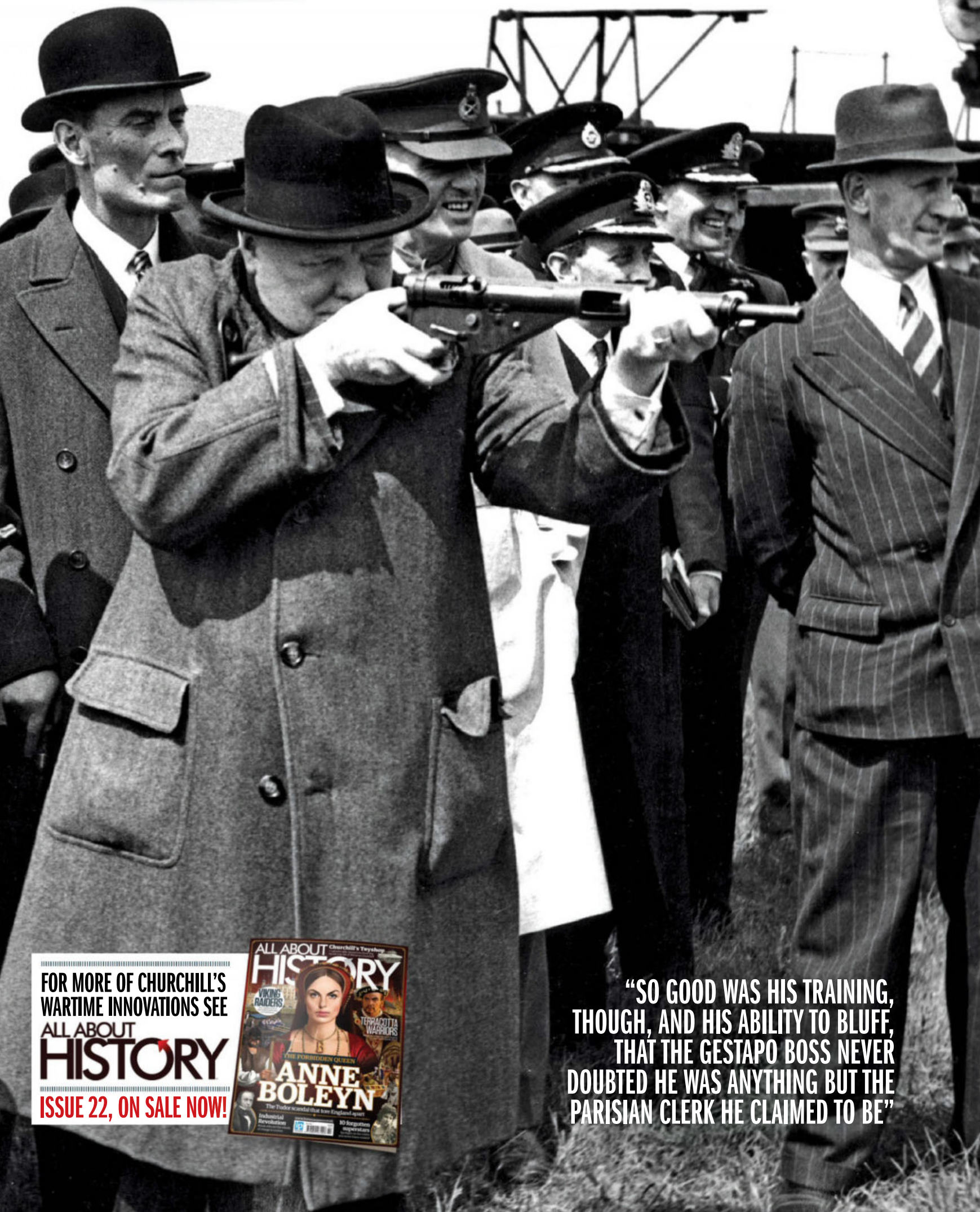
Essentially a smuggling operation set up to help raise funds for SOE activities, Operation Remorse deals in diamonds, foreign currency, rubber and machinery – it raises £77 million.

“THE TEAM CREPT ACROSS THE CHANNEL TO SINGAPORE HARBOUR IN THREE KAYAKS, ATTACHED A STRING OF LIMPET MINES TO JAPANESE VESSELS IN THE PORT, BEFORE SLIPPING AWAY AGAIN UNDETECTED. AROUND 50,000 TONNES OF JAPANESE SHIPPING WAS DESTROYED THAT NIGHT”

FORCE 136

1942-45 MALAY

Force 136 is the cover name given to SOE operations in Malay. Under the guidance of Colonel Spencer Chapman, hugely effective Chinese guerrilla groups are organised to fight the Japanese.



FOR MORE OF CHURCHILL'S
WARTIME INNOVATIONS SEE
**ALL ABOUT
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**"SO GOOD WAS HIS TRAINING,
THOUGH, AND HIS ABILITY TO BLUFF,
THAT THE GESTAPO BOSS NEVER
DOUBTED HE WAS ANYTHING BUT THE
PARISIAN CLERK HE CLAIMED TO BE"**

OPERATION ENGLANDSPIEL

1942-43 ★ THE NETHERLANDS

NOT ALL SOE OPERATIONS WERE A SUCCESS – IN HOLLAND THE NAZIS INFILTRATED A BRITISH SPY CIRCUIT, RESULTING IN THE EXECUTION OF MANY AGENTS

In March 1942, an SOE radio operator called Herbert Lauwers was arrested in The Haag. Under the direction of German intelligence officer Major Hermann Giskes, Lauwers was then forced to transmit messages to London feeding back false information. To alert Baker Street that he'd been captured, Lauwers deliberately left out his own security code when transmitting, but inexplicably the SOE's Dutch section continuously ignored its omission. Worse, they continued to send out agents and announce to Giskes, via Lauwers, where they'd be landing. Giskes called his counter-intelligence operation the Englandspiel or England game, and he played it impeccably for the next 20 months.

It wasn't until November 1943 when two SOE agents escaped a Gestapo jail in the Netherlands and made it to Switzerland, that London found out what was happening. The game came to an end, but by then some 61 agents had been arrested and shot.

Right: When transmitting, SOE radio operators would include a security code to confirm their identity and authenticate the message



Once trained, the agent was then handed over to SOE's support department to be kitted out. In the *James Bond* books, 007 is supplied with a stream of eccentric gadgets by the Whitehall boffin Q. In reality, SOE's quartermasters supplied their agents with a variety of weapons that were, if anything, even more fiendish. These included exploding rats, guns disguised as cigars, and daggers concealed in pencils. Even itching powder was used, with agents managing to contaminate U-Boat crew underwear and German army-issue condoms with the stuff. It is little wonder Churchill dubbed the SOE 'The School of Ungentlemanly Warfare.'

Behind enemy lines

As well as weapons, the support units also supplied everything the agent needed to make their cover convincing. That included forged identity cards, passes, ration cards and just about any other documentation needed to survive in Nazi-occupied Europe. Attention to detail was absolutely paramount. One missed number or misspelled word could cost an agent his or her life.

The same applied to an agent's costume. At the start of the war, operatives were given authentic clothes taken from refugees fleeing the Nazi tidal wave. As time went on, though, the SOE had to develop its own fashion department to go alongside its forgery office. Tailors were drafted in who specialised in creating clothing made to continental patterns. Again, every fine point was considered right

SOE'S GALLERY OF ROGUES

MISFITS, MISCREANTS, DOUBLE AGENTS AND FUTURE HOLLYWOOD STARS WERE ALL DRAWN TO THE RANKS OF THE SO-CALLED BAKER STREET IRREGULARS

FOREST YEO-THOMAS

YEARS ACTIVE: 1940-45
British-born Yeo-Thomas spent much of his childhood in France and was immersed in both the culture and the language. His early life had been a heady mix of adventure and glamour. At 17 he'd escaped a Soviet prison by strangling a guard, but by his 30s he was working for a Parisian fashion house. Already a middle-aged man by the time the war started, he would become arguably SOE's most daring agent and, according to some, the inspiration for *James Bond*.



VIOLETTE SZABO

YEARS ACTIVE: 1943-45
Born in France of Anglo-French parents, but raised in Brixton, south London, Violette Szabo was a single mother when she joined SOE. Her husband, an officer in the Free French Army, had been killed fighting in Egypt in 1942 shortly after she'd given birth to their daughter. Her first SOE mission to France was a success but her second, after the D-Day landings, resulted in her arrest. She was executed at Ravensbrück concentration camp the following year aged just 23.



KIM PHILBY

YEARS ACTIVE: 1940-41
Kim Philby's notorious career in espionage began as an SOE "instructor in clandestine propaganda". With access to the communiqués from the Enigma code-busters at Bletchley Park, Philby was able to forewarn Stalin about both the German invasion of the USSR in 1941, and the Japanese decision to attack Singapore rather than Russia the following year as Hitler had demanded. The former information was ignored, the latter ensured Moscow never fell to the Nazis. Philby was later exposed as a Soviet spy.



ANTHONY QUAYLE

YEARS ACTIVE: 1943-44
Given the nature of the work, it's perhaps not surprising that a number of SOE agents ended up as actors – some like Anthony Quayle even ended up as Hollywood stars. Quayle was dropped into Albania in 1943. By then Italy, which had occupied the country for four years, had capitulated, and German troops were filling the void. Quayle was instructed to co-ordinate local partisan efforts in tying down thousands of its troops in this remote and wild part of Europe.



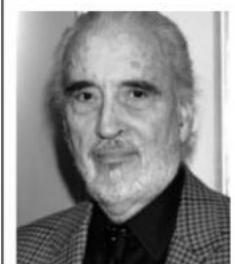
ODETTE HALLOWES

YEARS ACTIVE: 1942-45
French-born Odette Hallowes was a mother of three when she agreed to be sent back to her homeland to act as an SOE courier for a resistance circuit. Arrested within a year of landing and sentenced to death, she suffered despicable torture before being sent to Ravensbrück concentration camp for execution. She survived the war and remains the only woman in history to have received the George Cross – Britain's highest non-military honour for bravery – while still alive.



CHRISTOPHER LEE

YEARS ACTIVE: 1942-45
Best known these days for his villainous roles in *The Lord of the Rings* and *Dracula* films, this Hollywood star was also an SOE agent. He served in North Africa and Italy but to this day remains secretive about the nature of his work. Although he recently admitted to being "attached to the SAS from time to time", Lee has consistently refused to elaborate further about his role in the SOE. Intriguingly he is also *James Bond* author Ian Fleming's cousin.



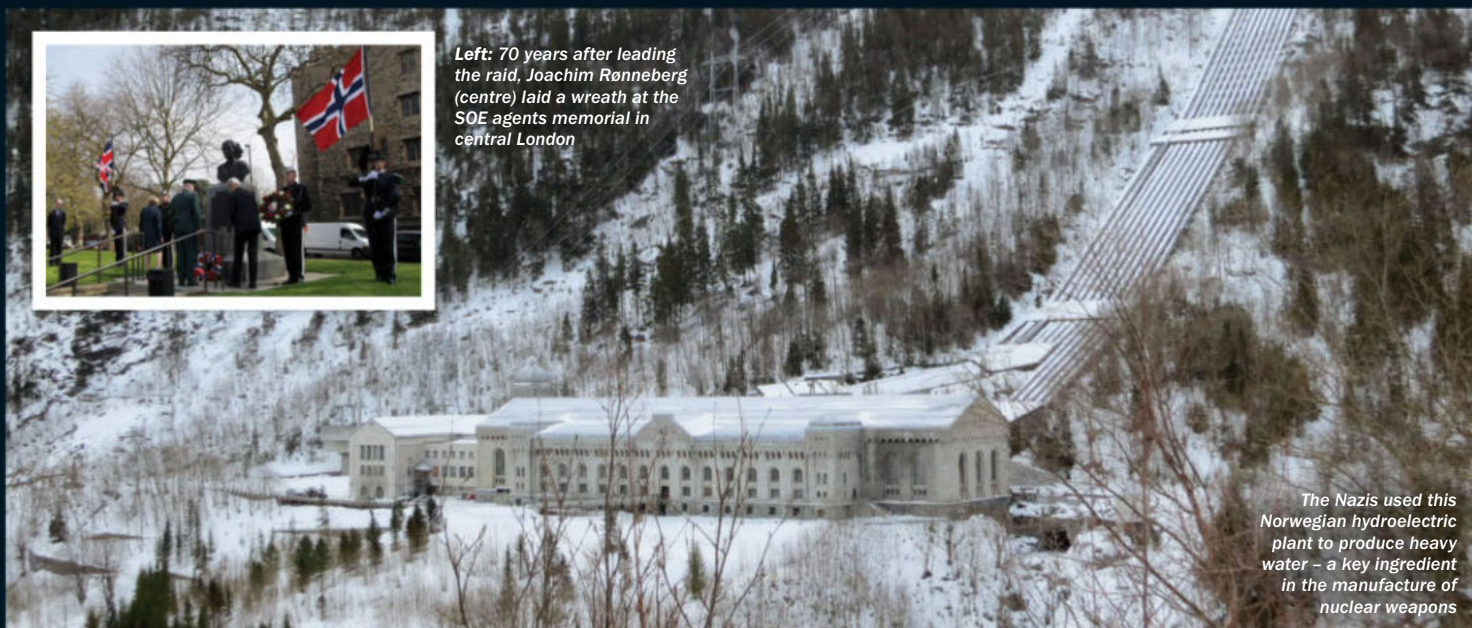
OPERATION GUNNERSIDE

1943 ✪ NORWAY

HOW A DRAMATIC SOE RAID ON A REMOTE NORWEGIAN FACTORY CHANGED THE ENTIRE COURSE OF THE WAR



Left: 70 years after leading the raid, Joachim Rønneberg (centre) laid a wreath at the SOE agents memorial in central London



The Nazis used this Norwegian hydroelectric plant to produce heavy water – a key ingredient in the manufacture of nuclear weapons

In 1942 the Allies discovered that the Nazis were developing a nuclear bomb. Essential to that process was a chemical known as 'heavy water', which they were producing at Vemork Hydroelectric Plant in Norway. Clearly any success in this endeavour could spell doom for the Allies, so was decided that the Nazis' stockpile must be destroyed – SOE was given the job.

A four-man team was parachuted into Norway in October 1942. In February 1943, they were joined by a further six agents and a raid on the plant was

planned. Not that reaching the factory was easy. Perched on a rocky outcrop, it was apparently only accessible via a bridge that had a 24-hour guard, and was overlooked by machine guns and searchlights. The all-Norwegian team, led by Captain Joachim Rønneberg, however, discovered they could reach Vemork by climbing down the gorge and avoiding the bridge altogether.

The attack began just after midnight on 28 February 1943. The squad, having cut its way through the plant's steel fence, split in two.

One half stayed at the perimeter to provide covering fire in the event the raid was rumbled, while the other broke into the factory. Led by Rønneberg, it made its way to the heavy water store. Here charges were laid with just 30-second fuses. The team hadn't been detected but were determined to make sure the bombs went off, even if it resulted in their capture. In the event, the Norwegians escaped unscathed, and Nazi Germany was prevented from becoming the world's first nuclear power.

OPERATION HARLING

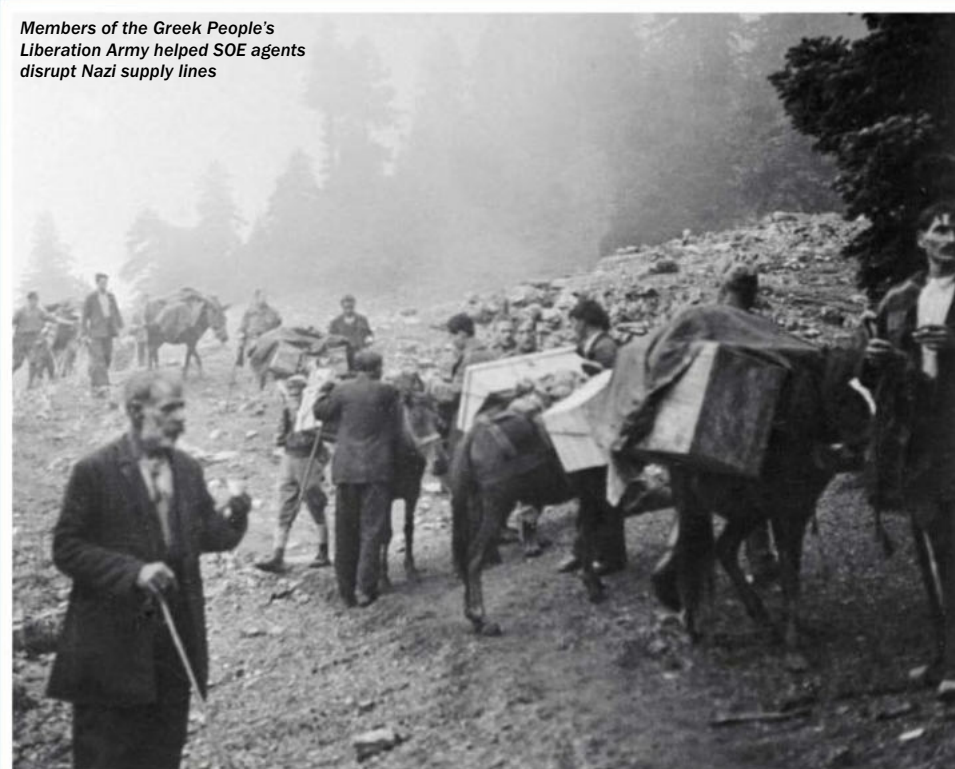
1942 ✪ GREECE

GERMANY'S MONUMENTAL MILITARY UNDERTAKINGS MEANT ITS SUPPLY LINES WERE PARTICULARLY VULNERABLE – A FACT THAT WAS NOT LOST ON SOE COMMANDERS

In 1942, the SOE was tasked with severing a railway in Greece, which was a main supply route for Rommel's Afrika Korps. Led by Brigadier Eddie Myers a 12-man team was dropped into Greece on 1 October with orders to blow a bridge along the railway's route.

Myers identified the Gorgopotamos Bridge, with its garrison of 80 Italian soldiers, as the softest target. Joined by a force of over 100 local fighters his team hit the bridge at 11pm on 25 November. Communication wires were cut, and the garrison's outposts at either end of the bridge attacked. Resistance was stiffer than expected, though, and Myers had to send his saboteurs in under fire. It took them three hours to wire the bridge up, during which Italian reinforcements joined the fighting. At 02.21am the last of three explosions finally destroyed the bridge. Myers' troops slipped away having suffered just four casualties.

Members of the Greek People's Liberation Army helped SOE agents disrupt Nazi supply lines



down to the buttons and zips. A Made in England label could easily betray the wearer.

Once ready, agents were then dropped behind enemy lines where they would typically fulfil one of three roles: wireless operator, courier (a role often ascribed to female agents who it was thought aroused less suspicion), and circuit organiser (CO).

The CO's job was to create and manage a circuit of cells, each one made up of approximately 20 to 25 resistance fighters. To maintain maximum security, these cells would operate independently of and know as little about one another as possible. The CO was the only person on the ground who knew everyone, effectively sitting on top of a pyramid that could contain dozens of cells and hundreds of members. That way, if one cell was infiltrated the whole circuit wouldn't collapse.

For the Gestapo, COs became highly prized trophies, and SOE operatives were trained to expect the worst if captured. 'Play for time' was the mantra that was drummed into agents at Beaulieu. If arrested, a brutal interrogation was inevitable, and agents were instructed to hold out for at least 24 hours in order to buy their circuit valuable time to get away and regroup.

By the time Yeo-Thomas sat down with Klaus Barbie in that dining car in September 1943, he was arguably the best-connected CO in occupied Europe. So good was his training, though, and his ability to bluff, that the Gestapo boss never doubted he was anything but the Parisian clerk he claimed to be. In fact, such was Forest Yeo-Thomas' chutzpah that he even grumbled to Klaus Barbie about how recent acts of sabotage – acts that he himself helped to organise – had disrupted the train service. The Nazi apparently promised he was doing everything possible to catch those responsible.

At the end of the meal, the White Rabbit walked away. It would be decades before Barbie, by then living under an alias himself as a war criminal in Bolivia, would learn just how close he'd come to capturing his arch-nemesis.



SOE AND D-DAY

WHEN THE ALLIED INVASION OF EUROPE CAME, THE ROLE PLAYED BY SOE'S GUERRILLA FORCES WAS TO PROVE COSTLY BUT VITAL

France was arguably the most important country SOE operated in. Not only did the circuits there provide intel that proved vital during D-Day, but once the invasion started the secret army SOE had nurtured there emerged from the shadows to bring down Fortress Europe from within.

During the evening of 5 June, 1944, as the Allied invasion force neared the Normandy coast, the French resistance was called to arms by the BBC. The corporation's radio broadcasts had long been used to transmit coded messages to occupied Europe and it now sent word that the liberation was coming. A carefully planned campaign to disrupt the routes leading into Normandy now began.

This tactic was designed to paralyse the German response and although it was to prove

highly effective, it often came at a high price. The harassment of the SS Panzer Division Das Reich stands out as one such example. Stationed in south-west France, the division first tried to rush to Normandy by train, only to discover all the local rolling stock had been sabotaged, so instead drove the panzers north.

Harried every step of the way, its commanders became increasingly infuriated and at the village of Oradour-Sur-Glane in central France, on the 10 June, a further delay resulted in the massacre of 642 civilians. Not that the hold-ups stopped. Instead of the usual four days, Das Reich's road trip took 15. By the time it arrived in Normandy, the bridgeheads were established and the tide of the war had already turned.

TOOLS OF THE TRADE

DELAY-ACTION FUSE

Different coloured ampules of acid dissolve at different times (often as much as month), completing the circuit and detonating the explosives.

MCLAGLEN PESKETT CLOSE COMBAT WEAPON

A weighted bludgeon, stabbing blade and wire garrote all in one.

MINIATURE MONOCULAR

Extending to 3 inches and boasting x2 magnification.

FAIRBAIN-SYKES FIGHTING KNIFE

NUCKLEDUSTER

THUMB KNIFE

COMPASS

FP-45 LIBERATOR

The US-made single-shot Liberator pistol was designed to be dropped behind enemy lines in huge numbers for resistance forces. It was never widely used.

SOE AT BEAULIEU

Though best known for its National Motor Museum, Beaulieu also hosts a permanent Secret Army Exhibition dedicated to the Special Operation Executive's 'Finishing School' which was held on the estate during World War II. Find out more at www.beaulieu.co.uk.



Heroes of the Medal of Honor

AUDIE MURPHY

One of America's most decorated soldiers, this Texan won the US's highest military honour for facing down three companies of men and tanks

WORDS JACK PARSONS

At 5'5" and weighing just 112 pounds, Audie Murphy was turned away by the Marines and the Air Force for his scrawny stature when he attempted to enlist days after the Pearl Harbor attack. The Army was prepared to take him on, but his superiors tried to relegate him to kitchen staff when he passed out during a training exercise. However, Murphy was insistent that he wanted to fight, and after proving himself with a rifle and earning a Marksman Badge, the Army 'rewarded' him. When he was sent to war in 1943, no one expected the corporal that everyone mockingly called 'Baby' to go far, let alone become a national hero – but that's exactly what he did in 1945.

The secret behind Murphy's slender build and youthful good looks, which made him a figure of fun among his fellow soldiers but later endeared him to the ladies as a Hollywood star, was revealed when he died in 1972. Killed in a plane crash in the Virginia Mountains, Murphy's driver's licence was found among the wreckage. It revealed his birthday was 20 June 1925, making him only 17 years old when he enlisted. His elder sister Corinne had helped him fake his age, providing a false affidavit for the year he was born.

Audie Leon Murphy was the seventh of 12 children from a family of impoverished sharecroppers in rural Texas. When his father abandoned them, an 11-year-old Audie dropped out of school to pick cotton for a dollar a day to help support his family. He also hunted small game with a rifle to feed his brothers and sisters, mastering a skill that would save his life during the war. In 1941, Audie's mother died of endocarditis and pneumonia, and though the young man worked two jobs, he couldn't prevent the authorities from placing his three youngest siblings in an orphanage.



FOR VALOUR

The USA's highest military honour is awarded to members of the armed forces for exceptional acts of valour in combat. This is when service personnel have gone beyond the call of duty, often placing themselves in difficult situations beyond reasonable expectation.

WHY DID HE WIN IT?

Murphy single-handedly fought off and directed artillery assaults against a much larger and heavily armoured German counterattack, defending a vital route into Germany in the final days of war in Europe.

WHERE WAS THE BATTLE?

Holzwihr Forest, Colmar Pocket, north-eastern France

WHEN DID IT TAKE PLACE?

26 January 1945

WHEN WAS HE AWARDED THE MEDAL?

9 August 1945

WHAT WAS THE POPULAR REACTION?

Considered a national hero, Murphy appeared on the cover of *Life* magazine and went on to play himself in the Hollywood adaptation of his autobiography, *To Hell And Back*. He also went on star in several Western movies.

The financial security that military service would offer both him and his remaining family was certainly a major factor when Murphy joined the Army later that year. In addition, he had always dreamed of joining the armed forces, as he was fond of playing games of soldiers as a boy.

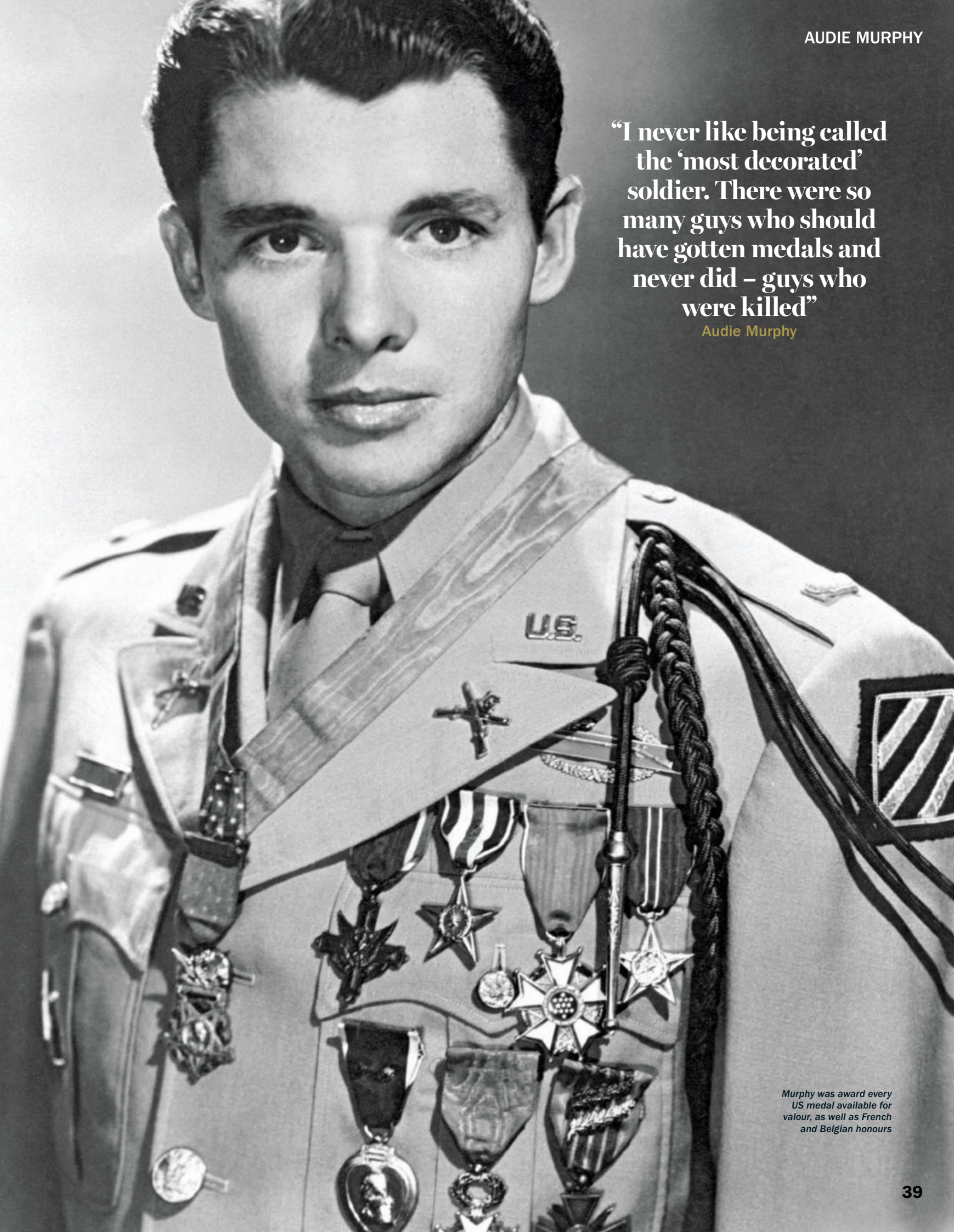
However, his time in Europe quickly dispelled any illusions he had of the glory of war. As part of the 3rd Infantry Division's 15th Infantry Regiment, Company B, he was sent to invade Sicily, landing at Licata on 10 July 1943. Killing two fleeing Italians, as well as witnessing the death of a friend, had a harrowing affect on the young soldier. "The Sicilian Campaign has taken the vinegar out of my spirit. I have seen war as it actually is, and I do not like it. But I will go on fighting," he wrote.

And fight he did. Though he had no taste for killing, he was not short on courage. After helping secure Sicily and mainland Italy, the 3rd Division was tasked with the amphibious invasion of Southern France in mid-1944. In August in Ramatuelle, a small town inland from Saint-Tropez, Murphy once more risked his life when he single-handedly wiped out a German machine gun that had his men pinned down, for which he was later awarded the Distinguished Service Cross. Murphy also reportedly went berserk after his friend was gunned down by a Nazi soldier feigning surrender. He would later be named an honorary citizen of Ramatuelle for his role in the town's liberation.

In late January 1945, Murphy was promoted to Company B commander and charged with protecting the Colmar Pocket. This horseshoe-shaped series of fortifications jutted out of Western Germany, across the Rhine and into France. As long as the enemy held this area, allowing them to safely bring reinforcements across the river, they remained able to launch attacks of their own. With the Battle of the Bulge nearing Allied victory, the pressure was on to end the war quickly. Murphy and his men had orders to hold the forest that lay near Riedwihr and Holtzwihr; the Allies hoped to secure positions that would enable an effective invasion of Germany once the weather warmed.

“I never like being called the ‘most decorated’ soldier. There were so many guys who should have gotten medals and never did – guys who were killed”

Audie Murphy



Murphy was award every US medal available for valour, as well as French and Belgian honours



03 The enemy waivers

Murphy's makeshift machine-gun nest leaves him exposed to German fire from three sides, but he succeeds in killing dozens of the enemy, forcing the attacking infantry to reconsider their options. Without infantry support, the enemy tanks are soon forced to pull back.

02 Tank destroyer

One of the Allied M-10 tank destroyers receives a direct hit from a Tiger tank and begins to burn as its crew runs for cover in the woods. Though the wrecked tank destroyer could blow up at any moment, Murphy climbs aboard and turns its .50-caliber machine gun on the enemy.

01 Defiant stand

As three companies of soldiers and six tanks attack Murphy, he has his decimated troops pull back, while he remains on the frontline to give directions to the artillery by telephone. While this succeeds in taking out large numbers of Germans, wave after wave of the superior force advances.

05 Final push

After receiving a shot to the leg, Murphy continues to single-handedly fight until he runs out of ammunition. Retreating to the woods to join his company, instead of demanding medical attention, he organises the men into an effective counterattack, routing the Germans once and for all.

Praise for a hero

“One of the most courageous men ever to wear the military uniform of the United States in defence of freedom. A man of humble origin, he overcame many obstacles to win a battlefield commission and became a national hero, a recipient of 24 awards for combat action in North Africa and Europe”

Chief of Staff General William Westmoreland

04 Sneak attack

For an hour the Germans try every available weapon to eliminate Murphy, but he continues to defiantly hold his position, calling in artillery fire and manning his machine gun. When a German infantry squad attempts to creep up on him unnoticed, he wipes it out with a hail of bullets.

However, German forces did not wait that long to attempt a counterstrike. On 26 January, Murphy's men were attacked by six tanks and waves of infantry. His once 128-strong unit had already been reduced to just 19 men after the long, slow battle to take the Colmar Pocket in the depths of winter. Outnumbered, and with the frozen earth too hard to dig in, Murphy ordered his remaining men to withdraw and prepare positions in the woods. He remained on the front line at his command post, giving fire directions to the artillery by telephone.

He also had two Allied M-10 tank destroyers for protection, but on the uneven earth one could only point in the wrong direction and was combat ineffective. The other machine took a direct hit from a German tank and began to burn as its crew withdrew to the woods. Murphy continued to direct artillery fire, which killed large numbers of the advancing enemy infantry. With the enemy tanks abreast of his position, Murphy climbed on the burning tank destroyer, which was in danger of blowing up at any moment, and employed its .50-calibre machine gun against the enemy.

Murphy was alone and exposed to incoming fire from three sides, but his deadly fire killed dozens of Germans and caused their infantry attack to waver. The enemy tanks, losing infantry support, began to fall back. For an hour the German forces tried every available weapon to eliminate Murphy, but he continued to hold his position and even wiped out a squad that attempted to creep up unnoticed on his right flank. The enemy reached as close as ten yards, only to be mowed down by his fire. He received a leg wound, but ignored it and continued the single-handed fight until his ammunition was exhausted. He then made his way to his company, refused medical attention, and organised the company in a counterattack, which forced the Germans to withdraw. His directing of artillery fire wiped out many of the enemy; in total he killed or wounded about 50. Murphy's indomitable courage and refusal to give an inch of ground saved

his company from possible encirclement and destruction, and enabled it to hold the woods.

Murphy's actions on that frigid afternoon earned him the congressional Medal of Honor and made him a national hero back home. When he returned to his native Texas in June 1945, 300,000 people flocked to his homecoming festivities in San Antonio. He also appeared on the cover of *Life* magazine the following month, which is when Hollywood producer James Cagney spotted him. Cagney signed Murphy up and trained him as an actor.

In 1949, Murphy published his autobiography *To Hell And Back*, and in 1955 played himself in the big-screen adaptation. He had many other lead roles, starring in *Bad Boy* (1949) and played Billy the Kid in *The Kid From Texas* (1950). However, though he enjoyed public adoration for several years, he suffered privately. Showing symptoms of what is now known as post-traumatic stress disorder, he suffered bouts of insomnia and depression. When he did sleep, he had nightmares of his war-time experiences and his wife Wanda Hendrix claimed he even slept with a revolver under his pillow. To try and regain a fit-less sleep, he developed an addiction to sleeping pills. He tragically died in a plane crash in 1971, aged just 45.

Below: After leaving the army, Murphy embarked on a brief but successful career in Hollywood



Corbis; Ed Crooks

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Great Battles



SEKIGAHARA

WORDS FRANCES WHITE

A clash of clans that erupted in the centre
of Japan and would decide the fate of the nation



The battle of Sekigahara is known popularly as the realm divide

SEKIGAHARA, JAPAN 21 OCTOBER 1600

WHO

Western clans loyal to Toyotomi Hideyori led by Ishida Mitsunari and Mori Terumoto, versus the eastern clans loyal to Tokugawa Ieyasu.

WHAT

A conflict to establish the ruling dynasty of Japan, by granting the victorious clan and its lord strategic control of the approach to the capital of Kyoto.

WHERE

Sekigahara, a town in the modern Fuwa district, known as the crossroads of the country as its in the centre of Japan's main island, Honshu.

WHY

The death of daimyo and "second great unifier" Toyotomi Hideyoshi created a power vacuum, and two factions moved forward to fill it.

OUTCOME

Tokugawa is victorious and gains control of all of Japan, kicking off over 250 years of the Tokugawa shogunate which lasts until 1868.

By the end of the 16th Century, Oda Nobunaga had changed Japan forever. The samurai warlord had conquered his way across the country, taking control of the fractured military fiefdoms one by one. Slowly but surely Nobunaga's bloody campaign led to the unification of a third of Japan, forming a mighty land far removed from the warring

states that existed before. However, a swift and shocking end was put to this unification when his own samurai general, Akechi Mitsuhide betrayed him and the warlord was forced to commit ritual suicide, or seppuku.

However, Mitsuhide would not rule for long. Nobunaga's loyal vassal, Toyotomi Hideyoshi, vowed to avenge his master and faced the





usurper in battle – forcing him to flee just two hours after the fighting began at Yamazaki. Mitsuhide's reign as shogun had lasted only 13 days. The man who had defeated him, Toyotomi, came from only humble beginnings. Not the son of a samurai or a daimyo, (a feudal lord), he was peasant-born and was given no surname at birth. Nevertheless, Toyotomi was fiercely loyal to his master and continued the work of unifying the warring states of the country. He steadily consolidated power until his death in 1598, leaving his clan to take control of the ever-growing and powerful Japanese nation.

Many didn't like the idea of being ruled by a previously peasant clan, and Toyotomi's failed invasions of Korea also cast doubts over its power. With the ruling clan's right to reign in doubt, a huge power vacuum formed in the Japanese government, and one man in particular was very keen to fill it.

Tokugawa Ieyasu, unlike Toyotomi, had a privileged background and was born to rule. His father had been a daimyo and his mother the daughter of a samurai lord – noble blood pulsed through his veins. He had been surrounded by war and death since the day he was born and he believed with every fibre of his being that he was the right person to rule the united land. He had caused unrest previously by pledging his allegiance to Oda Nobukatsu, the heir of

“WET, COLD, TIRED AND WITH USELESSLY DAMP GUNPOWDER, MITSUNARI AND HIS MEN HALTED AT THE TOWN OF SEKIGAHARA, EXPECTING THE EASTERN ARMY TO ATTACK”

Oda Nobunaga opposed to Toyotomi, and he decided to rise up against the same family once more. For two years he plotted, schemed and persuaded various daimyo to side with him against the Toyotomi clan. With perfect timing for Tokugawa, the oldest and most respected of the Toyotomi regents died, so the ambitious lord made his move. He took over Osaka castle, the residence of the young Hideyori, son of Toyotomi, in a brutal and obvious snatch for power.

Ishida Mitsunari stood as the main opposition to Tokugawa's aggression. This powerful daimyo had a long history with Toyotomi, as well as fighting side by side with the ruler, he was also a top administrator of the regime. A man of rigid character with a calculating brain, Mitsunari had trouble maintaining relationships with men whose power he needed.

He immediately recognised Tokugawa as a threat to the Toyotomi rule, so headed an unsuccessful plot to have him assassinated. While provincial regents built up their military

forces amid flying accusations of betrayal, outraged condemnations of clans and families attacking one another, Tokugawa finally summoned together all his supporters into a powerful force. Mitsunari also took advantage of the chaos, bringing together all those loyal to the Toyotomi clan.

The two armies assemble

Tokugawa wasn't the only one with powerful friends. While his rival was distracted hunting down a wayward clan that had taken up arms, Mitsunari gathered a group of powerful samurai and government figures, including Otani Yoshitsugu and Mori Terumoto. The force he brought together became the western army to counter Tokugawa's eastern army. Terumoto took the near-abandoned Osaka castle as his base, but when Tokugawa learned of his enemy's movements he split his forces, sending several daimyo to engage the main western army while he marched towards Osaka.

Both armies were now marching towards Gifu castle, where the roads to Osaka converged. Mitsunari intended to take the castle and use it as a staging area for his planned takeover of Kyoto. However, his enemy got there first, and the general was forced to retreat south against a violent storm.

Wet, cold, tired and with uselessly damp gunpowder, Mitsunari and his men halted at the town of Sekigahara, expecting the eastern army to attack at any time. He arranged his men in a defensive position with two streams either side of them. On 20 October, Tokugawa finally learned of the disposition of his enemy's troops after his advanced guard accidentally stumbled right



The arquebuses snuck into the battle by the eastern forces proved to be pivotal to their success



upon the awaiting army in thick fog. Both sides panicked and withdrew before any action was taken, but battle was now inevitable.

To many it seemed that Tokugawa's army was completely outmatched. Mitsunari's western army numbered some 120,000 men, over 40,000 more than the eastern opposition. Mitsunari also held all the tactical advantages: he had men positioned high on the hills around the terrain, and his own army was placed between two rivers. But Tokugawa was no fool, and had managed to sneak in a supply of arquebuses – powerful muzzle-loading firearms that could easily turn the tide of battle against a sword-equipped foe. Perhaps most importantly, his scheming has taken root among the ranks of the western army, as he had promised swaths of land to the daimyo that would change sides during the battle. First he needed to demonstrate that his was the winning cause.

The eastern army attacks

As soon as the heavy mist masking the field lifted, Tokugawa's vanguard, led by Fukushima Masanori, charged north, following the Fuji river. They crashed into the western army's defensive line positioned in the right-centre, where persistent rain had softened the ground into a muddy, sludgy mess. The organised lines quickly descended into chaos and the fighting became brutal, with men desperately tearing into one another, but neither side gained an advantage in the sudden desperate madness.

Tokugawa, witnessing Fukushima's attack failing to make any ground, commanded his right and his centre to charge the enemy's left, hoping that sheer numbers would overwhelm and Fukushima would finally be able to break through. The large number of samurai streaming across the field caught Mitsunari's attention, causing him to turn his as yet unscathed centre force. This simple command began to show the cracks in not only

HELMET

Known as a kabuto, this helmet is comprised of forged plates riveted together. The crescent moon helmet was famously worn by the warrior Date Masamune.

MASK

Also known as a mempo, samurai would often wear a variety of face masks to help support the heavy helmet, while the fearsome designs played a vital psychological role.

DOU

Made from a series of steel plates linked together by leather thongs. This body armour would be covered with lacquer that would make it weather proof.

Mitsunari's army, but also his own leadership. Shimazu Yoshihiro, in control of the centre, flat out refused to ride to the aid of the right flank, and the powerful daimyo proclaimed he would only listen to respected commanders. Mitsunari's stubborn centre remained firmly in place, and he could only watch as Tokugawa's attack sliced through his men.

With Mitsunari's centre refusing to move, Masanori's attack finally gained ground, but this only served to put them in more danger. As the eastern force advanced along the Fuji river, Otani Yoshitsugu, one of the few powerful samurai who Mitsunari had somehow managed

OPPOSING FORCES

EASTERN ARMY

LEADER

Tokugawa Ieyasu

STRENGTH Approx 88,890

GAME CHANGERS

Arquebus: an early muzzle-loaded matchlock firearm considered dishonorable by many samurai.

WESTERN ARMY

LEADERS

Ishida Mitsunari, Mori Terumoto

STRENGTH Approx 81,890

GAME CHANGERS

Strategic advantage and a greater number of troops stationed at key points.



to convince to defect to his side, stood positioned across the river. His forces were able to pounce on the advancing eastern army, slowing Fukushima's attack once more.

The splintered western shield

Also positioned across the Fuji river, on Mount Matsuo, Kobayakawa Hideaki, began by fighting for the western alliance. However, Tokugawa had courted the general before the battle and Kobayakawa had secretly promised he would defect to fight with the eastern army when the time was right. With Yoshitsugu's surprise forces just past him, the time was ideal for Kobayakawa to act – but he hesitated. With Mitsunari sending frantic signals for Kobayakawa to aid Yoshitsugu, and Tokugawa aware that his entire cause could hang on whether Kobayakawa moved, the general was frozen with decision. Not a man known for patience, Tokugawa decided to take action. He commanded his men to fire their arquebuses at Kobayakawa's position, forcing him to make a choice. As the shots rained down on Mount Matsuo, Kobayakawa's force finally charged down the hill into the fray. Kobayakawa's soldiers ignored Masanori and directed their attack at the western leader, Yoshitsugu. Kobayakawa, although it had taken some persuasion, held firm on his promise and betrayed his western allies.

However, Yoshitsugu and Mitsunari already suspected Kobayakawa's potential betrayal long before the battle, so prepared for his defection. Kobayakawa's force of 15,000 men crashed into Yoshitsugu's sturdy forces, who had turned to face the turncoats head on and fought them back bravely with their fresh, dry gunpowder. Although this rendered Kobayakawa's charge largely ineffective, Yoshitsugu came under immense and growing pressure. With these extra opponents on the field, under the command of several mighty samurai, there was no denying it – he was totally outnumbered.

Seeing Yoshitsugu barely holding out against such odds, one by one four western generals and their troops switched sides and swarmed upon the exposed Yoshitsugu forces from all sides. The effect was decisive – the inflated eastern forces overwhelmed the western defenders on the left flank. Seeing this, and that defeat was inevitable, Yoshitsugu took the only decision that honour left him and opened his stomach with his own sword to end his life.

Fukushima's unending charge

With Yoshitsugu's defeat, his forces quickly retreated from the field and left the western army's right flank free for the taking. Fukushima and Kobayakawa, now united in one huge, powerful force, thundered towards the right flank and destroyed it. At this point the eastern samurai outnumbered what remained of the loyal western force and their attack was swift and brutal. They continued the attack and advanced on the western centre. Mitsunari, his confidence shattered by the multitudes of betrayals, realised that with his shield decimated, defeat was imminent. With the same calculated intelligence that prompted the formation of his army, he ordered the retreat and fled up the northern hill slopes, hoping

Great Battles

SEKIGAHARA

08 Eastern victory. Western retreat
Fukushima and Kobayakawa rush towards the right flank, destroying it easily. Ishida admits defeat and his forces retreat. The western commanders scatter and flee, some manage to escape, but others are not so lucky.

03 Limited power
Ishida notices his army being overpowered so hastily orders his unscathed center to join his struggling right flank. However the daimyo Shimazu Yoshihiro, who is commanding this unit, refuses as Ishida is not a respected commander.

05 Forcing his hand
Noticing the strong defence of Otani's forces, Tokugawa is reliant on the support of Kobayakawa Hideaki, who lies close by. However, when he is hesitant to act, Tokugawa fires at his position and Kobayakawa finally joins the eastern army.

04 The shield to the advance
Due to the lack of reinforcements, Fukushima's unit overcomes their foes and slowly gains ground. As they are moving along the Fuji river this exposes them to an attack from Otani Yoshitsugu and his forces, who stand strong as a shield to Fukushima's advance.

07 West becomes east

Seeing the final buffer unlikely to stay strong, many western army generals defect and switch sides, overwhelming Otani's forces. He is forced into a retreat, leaving the path to the western army's right flank wide open.

02 Help arrives

Witnessing Fukushima's struggling forces, Tokugawa sends his right and centre forces to take down the western army's left. They launch an attack and overwhelm the western right-centre.

01 The first charge

The leader of Tokugawa's advanced guard, Fukushima Masanori, charges north from the left flank towards the western army's right-centre. The ground is muddy from rainfall so the resulting clash quickly descends into a manic struggle.

06 The eastern army overwhelms

Kobayakawa and his 16,000-strong force charges down from Mount Matsuo towards Otani. However, Otani's forces fire on the advancing army, rendering their attack virtually useless. However, the buffer he has established faces attacks from three other units and he struggles to maintain any semblance of control.



to find shelter in Mount Ibuki, the highest mountain of the region. The western army followed his lead, scattering and fleeing into the mountains. Although some managed to escape unscathed, Tokugawa's forces chased, captured and triumphantly killed many of the fleeing commanders.

Tokugawa's eastern army had won, but later into the day forces absent from the battle finally began to arrive at Sekigahara. His own son, Hidetada, faced his father's wrath when he arrived late with over 38,000 men – a force that could have won him the battle far quicker and cleaner. Hidetada had been distracted attempting to capture another castle, Ueda, against his father's own orders. Even some of Mitsunari's men had been held up – 15,000

troops slowed down by another conflict along the way. Had some of these troops arrived quicker, the result, and Japan's future, may have ended up very differently.

The future of Japan

Mitsunari's escape didn't last for long. Villagers loyal to the now all-powerful Tokugawa caught the fleeing samurai and handed him over to his enemies, who beheaded him in Kyoto along with several other powerful western daimyo. Tokugawa had to be sure his rule wouldn't be challenged by any other powerful men with dubious allegiances. As an example to others,

After their father's defeat, Mitsunari's children were forced to change their family name in order to survive





This is a 1854 replica of a 1620s Japanese screen depicting the events of the battle



The site of the battle as it appears today, commemorated with a memorial

After his defeat, Otani Yoshitsugu committed seppuku – ritual disembowelment



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“AS AN EXAMPLE TO OTHERS, MITSUNARI’S HEAD WAS PLACED ON A STAND FOR ALL TO SEE – A STRONG WARNING TO ANYONE WHO DARED RISE UP AGAINST THE NEW SHOGUN”

Mitsunari’s head was placed on a stand for all to see – a strong warning to anyone who dared rise up against the new shogun.

Tokugawa was true to his word, after the battle he redistributed the lands to those who had fought by his side and who came true on their vows to change sides. Those who fought against him paid dearly. Toyotomi territories fell into his hands and pockets of Toyotomi support quickly faded after the

public executions of the western leaders. Three years after the Battle of Sekigahara, Emperor Go-Yozei appointed Tokugawa shogun of Japan, and the battle soon became celebrated as one of the most important victories in the nation’s history. At 60 years old, Tokugawa outlived and rose above all the powerful men of his generation in every possible way. Aware his years left on earth were few, he began to concentrate on strengthening his shogunate

and eliminating the last remaining Toyotomi clan members in a final clash at Osaka castle. With nobody around with enough power to challenge his rule, Tokugawa ensured his ancestors would rule the country for another 250 years. Although it emerged through bloody means, the Edo period under the shogunate is remembered as the last period of traditional Japan, before the aggressive westernisation of the 19th Century.

The Mori, Shimazu and Chosokabe clans maintained their contempt for the Tokugawa family, and this disdain was so strong, it would pass down to their descendants. They would eventually rise together to bring down not only the Tokugawa dynasty, but also a way of life that had endured for centuries.

ICON OF WAR

M1 GARAND

This highly effective and quintessentially American rifle was the standard-issue weapon for US soldiers during WWII and beyond

Named after its inventor, Canadian John C Garand, this rifle was developed during the 1920s in the world-famous Springfield armoury and commissioned by the US Army in 1936. Utilising the expelled gas of

each bullet to cycle the weapon for the next round, the Garand was the first self-loading or Semi-Automatic rifle to be issued as standard to the US infantry. By 1941, the weapon was fully put to the test on battlefields all over

the world and over 4 million were produced in total up until 1945. The gun re-entered service during the Korean War, where it proved its worth again, and became adopted on an international scale.

“The greatest battle implement ever devised”

General George S Patton

WOODEN BODY

When taken apart, the Garand split into three main groups: the barrel and receiver, the buttstock and the trigger. Like many rifles of the era, the Garand was made of walnut wood. The ease with which an experienced soldier could take apart and reassemble the weapon for maintenance made it all the more popular.

REAR SIGHT

COCKING HANDLE

BOTTOM OF MAGAZINE HOUSING

TRIGGER GUARD

REAR SLING SWIVEL

GRENADE ATTACHMENT

The M7 grenade launcher was designed to attach to the end of the Garand via the bayonet lug. An auxiliary cartridge, known as a vitamin pill, could be placed in the M7's muzzle before firing to increase the velocity and therefore the overall range of the grenade. During the Korean and even Vietnam wars, the M1 Garand was still being used and could even fire M31 HEAT anti-tank grenades to take out enemy armour.



BAYONET FITTING

As with most rifles of the era, an optional bayonet attachment was essential for up-close combat. The Garand was designed with a fitting under the barrel and could even accommodate previous-issue Springfield bayonets,

many of which reached up to 16 inches. During the Second World War more-up-to-date, ten-inch bayonets were issued to troops, often still featuring a blood groove along the middle of the blade. With the international production of the Garand, variants of its bayonet were also developed.

DETAILS

DATE: 1932
ORIGIN: US
BARREL: 61cm (24in)
CALIBRE: .30-06
FIRING MODE: Semi-Automatic
CLIP SIZE: 8 rounds



8-ROUND CLIP

Unusually the Garand loads from the top of the weapon, leaving a smooth, streamlined appearance. However, this system meant its 8-round clip had to be entirely exhausted before it could be reloaded. Additionally, once a clip was expended it would automatically eject from the gun with a characteristic pinging sound. Obviously this proved frustrating for soldiers, as not only was it inflexible when reloading, it loudly announced to the enemy that the clip was empty.

M14 EBR

THE GARAND'S DEADLY ACCURATE DESCENDANT

After gruelling service during the Second World War, it became clear that the Garand was in need of substantial improvement for the modern age. The M14 was the end result of a series of tests and experiments with automatic firing modes, improved ammo clips and improved accuracy. It was the last traditional battle rifle to be issued as standard to the US military, but was swiftly replaced by M16 assault rifles.

While the original M14's accuracy was entirely unreliable in Automatic firing mode, its precise single-fire ability made it the preferred choice as a Designated Marksman Rifle (DMR). The M21 Sniper Weapon System (SWS) was a highly effective modification of the M14 developed during the Vietnam War, while the M14 Enhanced Battle Rifle (EBR) modification is still widely used today.



Alamy

THE TAMIL TIGERS

WORDS TOM FARRELL

Sri Lanka (Ceylon) seemed like an Earthly paradise upon independence in 1948. But by the early 1980s, it had become an ethnic time-bomb

The most wanted man in Sri Lanka was found on the morning of 19 May 2009. There were hundreds of other bodies scattered in the marshes and dunes that formed the thin strip of coastline where, hemmed in by the Sri Lankan security forces, the Tamil Tiger fighters made their final apocalyptic stand.

When the final round of the island's civil war had erupted in mid-2006, most of the north and substantial tracts of the east had been under their absolute control. Then, three years later, the final sliver of rebel territory had been recaptured, at a terrible cost and in circumstances that continue to haunt the Sri Lankan government.

The wanted man was, but for the head wound that had killed him, in surprisingly good condition. When the Sri Lankan soldiers, prowling amid bullet-torn corpses and the smoking wrecks of Tiger vehicles, chanced upon him, his sightless eyes were stared skyward. The face, fleshy and mustachioed, had grown pale through blood loss. A pistol was clamped to his belt and he wore the distinctive uniform of the movement he had founded as the Tamil New Tigers in 1972: green combat fatigues banded like a tiger's hide.

Thus ended the life of Velupillai Prabhakaran, founder and supreme commander of the Liberation Tigers of Tamil Eelam (LTTE).

Start of a civil war

Looking from above almost like a teardrop off India's south-eastern tip, Sri Lanka (Ceylon) had long enchanted travellers. The very word 'Serendipity,' the faculty of an unexpected lucky discovery, is derived from Serendib, an old name for the island. Portuguese, Dutch and English colonists had occupied the fringes of Ceylon, but the central highlands did not succumb until the early 19th Century. This region, moist and mountainous, was the spiritual and cultural capital of the Sinhalese, an Indo-Aryan race who had embraced Buddhism in the 3rd Century BC. The north and east of the island was dominated by the mostly Hindu Tamils, who were treated more favourably by the British and gained many

important posts in the colonial administration. Smaller communities of Indian and Arab-descended Muslims and the Eurasian burghers also dotted the island. Later on, the British imported thousands of low-caste Tamils to work the rolling tea estates of the highlands.

This was a potentially volatile mix. Many Sinhalese Buddhists believe that in the 6th Century text, the Mahavamsa, the dying Buddha consecrated the island as uniquely sacred to Buddhism and thus indivisible. Even so, Ceylon seemed uniquely blessed when the British departed in February 1948. A year before, the island's massive sub-continental neighbour had broken apart as India and Pakistan. Independent Ceylon, by contrast, was bequeathed a strong economy, exporting commodities such as tea, together with a sound infrastructure, a robust parliament and a free press.

But within three decades the island, renamed 'Holy' Lanka, was on the brink of civil war. Much of the blame for polarising the races can be attributed to sections of the Buddhist clergy. Many bikkhus (monks) resented the 'secular' nature of independent Ceylon. They focused on the Tamil minority as the supposed source of the Sinhalese cultural decline and a continuing risk factor. Over 55 million Tamils lived just across the Palk Strait in the Indian state of Tamil Nadu, threatening to absorb the island. Every Sinhalese school child knew that the cities of Anuradhapura and Polonnaruwa were all that remained of great Sinhalese civilisations laid waste by Tamil invaders.

Opportunistic politicians played upon these fears and resentments. In the elections of 1956, S.W.R.D. Bandaranaike, an Anglican convert to Buddhism, won a landslide victory, promising to assert Buddhist hegemony. Over the following years, this translated into discriminatory quotas on university places and laws promoting the Sinhala language.

A wanted man

At this point, Tamils abjured violent resistance. An historic homeland called 'Eelam' (Precious Land) had existed, centred in the north and



LTTE fighters march through
Kilinochchi in northern Sri
Lanka in 2002



KEY FIGURES



VELUPILLAI PRABHAKARAN
(1954-2009)

Born in the northern village of Valvettithurai, the LTTE leader was known as 'Annai' (Elder Brother) to his cadres. Under his command, the Tigers grew from a few followers to one of the most formidable guerrilla armies. By the 1990s, the Tamil Tigers had 15,000 fighters.



SOLOMON WEST RIDGEWAY DIAS BANDARANAIKE
(1899-1959)

Bandaranaike came from an Anglicised Sinhalese family before converting to Buddhism. The election of his Sri Lanka Freedom Party marked the first major assertion of Buddhist nationalism. He was later assassinated by a monk.



J.R. JAYAWARDENE
(1906-1996)

Elected in 1977, President Jayawardene's United National Party launched a policy of privatisations and aligned Sri Lanka with the West. He also passed the draconian Prevention of Terrorism Act in 1979 which gave the security forces wide ranging powers and alienated many Tamils.



RAJIV GANDHI (1944-1991)

Rajiv's mother had allowed the Tigers and other Tamil militants to operate in India; in 1987 he sent Indian troops to enforce a ceasefire and devolution deal that the Tigers rejected. In May 1991 Gandhi and 26 others were killed by a female Tamil suicide bomber at an election rally held in southern India.



ANTON BALASINGHAM
(1938-2006)

Born in the eastern Tamil town of Batticaloa, he was the LTTE's chief ideologue. Accompanied by his wife Adele, he was the public face of the movement, frequently meeting with the Western media. He played an instrumental role in drafting a Ceasefire Agreement (CFA) in 2002, brokered by Norway.



MAHINDA RAJAPAKSA (1945-)

A lawyer and former actor from a prominent political family, Mahinda Rajapaksa was prime minister in 2004-5 and served as President from 2005 until his surprise defeat in the January 2015 elections. After his election, the CFA broke down and with his brother Gotabhaya serving as Defence Secretary, a final offensive was launched in the North.

TRIGGER POINT

east of Sri Lanka. Most Tamils, however, were loyal to the Federal Party, led by Anglicised Tamils committed to parliamentary politics. But the Federal Party began to look increasingly impotent as Sri Lanka's leaders introduced more draconian legislation.

In 1956, 1977 and 1983 Tamils bore the brunt of pogroms led by Sinhalese thugs, so wealthier Tamils began moving abroad. In later years they would be a lucrative source of funding for armed groups.

The teenage Velupillai Prabhakaran found himself caught up in the ferment of Tamil youth rebellion during the 1970s. The son of a pious civil servant from the warrior-fisherman caste, he formed a group of young militants who carried out attacks in and around Jaffna, a Tamil-majority city on the island's northern fringe.

Prabhakaran became a wanted man in 1975 when he assassinated the Mayor of Jaffna outside a Hindu shrine. The following year he transformed the Tamil New Tigers into the LTTE and drew up its constitution. He also designed its crest, a roaring tiger's head atop two crossed rifles surrounded by a halo of 32 bullets. This was based on the Chola, a Tamil dynasty that had dominated South Asia during the Middle Ages.

Shortly after this, Prabhakaran travelled to Madras (Chennai) where he was introduced to Dr Anton Balasingham. A journalist and former translator at British High Commission in the capital Colombo, Balasingham carried a British passport and was married to an Australian nurse, Adele Wilby. Until his death from cancer in December 2006, 'Bala Annai' functioned as Prabhakaran's ideologue and chief confidant. He was also a Marxist, which was uncharacteristic of the LTTE as a whole.

Massacre for Eelam

Joining the Tamil Tigers entailed complete commitment to Prabhakaran's vision of a mono-ethnic state. Tamils who belonged to rival parties or militant factions were under threat of death. Although the LTTE proclaimed the Sri Lankan state to be inherently racist, non-Tamils were ruthlessly purged from the crescent of territory that encompassed Eelam.

Early on in the war, Sinhalese villages in the north were massacred; in 1990, in their single largest act of ethnic cleansing, the Tigers expelled 60,000 Tamil-speaking Muslims, who had distanced themselves from the conflict, out of the Northern Province.

On the eve of the 26-year war, the LTTE was one of several Tamil groups running the gauntlet of the security forces amid the palmyra trees and marshes of the Northern Province.



A member of the 'Freedom Birds', the female wing of the Tamil Tigers

Below: Tamil child plays with an unexploded mortar near the LTTE-held A-9 road, early 2000s

Below, left: Tamil women in the rebel-controlled town of Kilinochchi mourn two Tiger officers killed by a government planted roadside bomb



1505

COLONISATION

Portuguese colonise parts of Ceylon. Sinhalese and Tamils have inhabited the island since the 3rd Century BC. Later the Dutch (1658) and British (1796) arrive but the Sinhalese uplands remain independent until 1815.

1931

THE RIGHT TO VOTE

The British grant the Ceylonese the right to vote and a cabinet is set up. Full independence occurs in 1948. The following year, many Indian migrant workers on the tea estates are denied citizenship.

1956

SRI LANKA FREEDOM PARTY

Solomon Bandaranaike and his Sri Lanka Freedom Party win a landslide election. Three years later he is assassinated by a monk and his widow Sirimavo takes over as the modern world's first female premier.



1971

A NEW NAME

A Marxist group called the Janatha Vimukthi Peramuna (JVP) launches a failed rebellion. The following year Ceylon is renamed Sri Lanka and a new constitution gives 'primacy' to Buddhism. The Tamil New Tigers are formed.

1976

EELAM PLEDGE

Velupillai Prabhakaran forms the Liberation Tigers of Tamil Eelam (LTTE). The Tamil United Liberation Front, a coalition of parliamentary groups, signs a resolution pledging to a separate Tamil state called Eelam.



The Tamil Tigers were notorious for the forced conscription of under-aged fighters

“UNLIKE THE OTHER FACTIONS, TIGER CADRES WERE ISSUED WITH A STRING NECKLACE CONTAINING A VIAL OF CYANIDE TO BE CONSUMED IN THE EVENT OF CAPTURE”

As yet they controlled no territory. Most groups comprised a few young firebrands with few weapons. The Tigers were challenged by groups like the Tamil Eelam Liberation Organisation (TELO), the People's Liberation Organisation of Tamil Eelam and the Eelam People's Revolutionary Liberation Front.

Although nominally committed to the common goal of fighting to carve a separate Eelam out of the north and east, the groups clashed frequently and bloodily over ideological and personal gripes. The LTTE, however, soon sidelined or simply wiped out the other insurgent groups. In later years, the remnants of these organisations crossed over to supporting the Sri Lankan state. TELO, for example, was decimated when the Tigers executed a co-ordinated storming of their training camps in April 1986, killing their leader Sri Sabaratnam.

The reason for the Tigers' eventual dominance of the rebellion was two-fold. First, Prabhakaran inculcated a fanatical and puritanical code of discipline in his fighters. Tiger cadres were forbidden alcohol, tobacco or sex, while all-female units would eventually make up around one third of the fighting force. During the 1990s, these female warriors,

known as the Birds of Freedom were at the front of a ferocious human-wave attack that overran fortified Sri Lankan Army (SLA) bases.

The LTTE also promoted a cult of martyrdom and sacrifice. Unlike the other factions, Tiger cadres were issued with a string necklace containing a vial of cyanide to be consumed in the event of capture. Moreover, many years before the 9/11 attacks in the United States, the elite Black Tiger unit was a particularly prolific exponent of suicide bombing.

The second factor in the Tigers' rise was the ability of its overseas agents to source money from the hundreds of thousands of expatriate Tamils. These funds, also raised through front companies or illicit activities, went towards purchasing weaponry that could be smuggled back to Sri Lanka in LTTE-owned ships. Often the money was given willingly. But with Tamil relatives within easy reach of 'the boys' back in Sri Lanka, requests were seldom refused.

The Tamil groups were initially given shelter by India. The pro-Soviet government of Mrs Indira Gandhi saw Tamil separatism as a means of destabilising the Western-aligned Sri Lankan government led by J.R. Jayawardene. New Delhi, however, had no wish to see Eelam actually

realised: a separate state would have given much encouragement to myriad separatist causes on Indian soil. By 1987, her son Rajiv had sent a peace-keeping force to the island, intent on enforcing a ceasefire, backed up by a devolution package. However, the Tigers turned on the Indian forces and by 1991 Rajiv himself had been assassinated at an election rally by a female Tamil suicide bomber.

Sri Lanka was regarded as an ethnic time bomb by the early 1980s. And so it proved: in July 1983, a night-time SLA patrol was massacred in the suburbs of Jaffna. When the bodies of the victims were returned to Colombo, some 8,000 Sinhalese converged on the burial grounds. Riots erupted. Starting in Colombo and spreading up country, Tamils were stoned, beaten and immolated. Some 3,000 mainly Tamil civilians were thought to have been killed during a week of violence and 150,000 made homeless. The seemingly nonchalant response of Colombo's politicians to the riots afterwards shocked even moderate Tamils. Donations to the cause of Eelam were stepped up overseas and in the refugee camps of southern India, militants stepped up their recruitment campaigns.

The stage was now set for one of Asia's longest and bloodiest wars, a conflict that would leave 90,000 people dead and defile what had once been seen as an island paradise. Although the Tigers were defeated militarily in 2009, the cause they espoused persists along with deep divisions within the island.

1981

ATTACKS BEGIN

Sinhalese thugs burn down Jaffna Library and the inept response of the security forces enrages Tamils. Two years later a Tiger attack on an Sri Lankan Army patrol escalates to island-wide attacks on Tamils.

1987

TALKS OF CEASEFIRE

J.R. Jayawardene and Rajiv Gandhi sign the Indo-Lanka Accord and attempt to devolve power in Tamil areas. A second JVP rebellion erupts in the south and the Tigers attack Indian troops sent to enforce a ceasefire.

1989

TROOPS WITHDRAW

The JVP rebellion is crushed in the south and Indian troops withdraw from the north. The LTTE wipe out rival Tamil groups and begin building a parallel state in the north and east.

2002

A NEW REGIME

After two failed ceasefires, a new government signs a Ceasefire Agreement with the LTTE. Peace talks become deadlocked the following year. A hard-line Sinhalese nationalist regime is elected in 2005.



Ruined armoured car near the key base of Elephant Pass

2009

LTTE WIPE OUT

Three years after full fighting resumes, Prabhakaran and most of the LTTE leadership is wiped out on a last strip of northern territory. The government declares victory but is haunted by allegations of war crimes.

Alamy/Corbis



20

GREATEST MACHINES OF WAR

WORDS JACK GRIFFITHS

From the AK-47 to the Apache gunship, the military weapons and vehicles of the last century have transformed modern warfare on land, sea and air

The machines of the 20th Century were endlessly bring and swung the pendulum for one side or another at crucial times. Just as a conflict looked as though it may grind to a stalemate, the order would be flipped on its head when a new invention made its timely debut on the battlefield.

The first machine guns brought about the end of marching in formation, while the arrival of the submarine blew the hierarchy of naval supremacy wide open. The most effective war machines are usually created as a response to seemingly unbeatable odds. The stealth bomber was invented to fight back against increasingly

effective radar systems, while tanks protected against the deadly machine gun fire that cut down infantry divisions in droves.

From the fall of once great empires, to the first truly global conflicts and the rise of new superpowers, the last century produced increasingly effective and terrifying military technology. Listed here are just a few of the most devastating and revolutionary war machines that transformed the battlefields of one of history's bloodiest ever periods. Without the invention of these terrible but brilliant engineering marvels, the history of war would be very different indeed.



A stealth bomber on its first public flight in 1989. The B-2s cost a massive £86,100 (\$135,000) per flight to operate

01 THE B-2 SPIRIT STEALTH BOMBER

IMAGINE AN AIRCRAFT ALMOST INVISIBLE TO RADAR THAT CAN STRIKE WITH EXPERT PRECISION FROM INCREDIBLY LONG RANGE. IT EXISTS, AND IT'S CALLED THE B-2

The world has come a long way since huge bombers blacked out the sky in the Second World War – now all you need is one. Among the most advanced of these bombers is undoubtedly the B-2 Spirit Stealth Bomber, which can reportedly do the job of 75 conventional aircraft. 21 of these modern aircraft were built (it would have been 132 if costs allowed) to strike heavily defended targets undetected.

An upgrade on the original Lockheed-Martin F-117 from 1981, its stealth is based on a smooth, contoured structure that keeps it partially hidden from radar. In addition, the bomber has systems that reduce its infrared, visual and electromagnetic visibility. A triumph of modern technology, underground bunkers can be struck by the craft's

armaments and pilot error has been almost eliminated with the on-board computer, which also prevents stalls. All these features were put to deadly use over Kosovo in 1999 and Afghanistan in 2001, with precision attacks against munitions factories. Today the B-2 provides the USA with opportunity for lethal strikes.

Stealth bombers have the potential to reduce the size of air forces drastically due to their versatility and superior armament. Their presence in the latter days of the Cold War dissuaded the onset of full-scale war, as a single strike from a B-2 in retaliation would cause mass destruction. Its appeal to the US Air Force continues into the modern day, with the bombers set to receive a £6.3 million (\$9.9 billion) upgrade.

TECHNICAL ASPECTS

COUNTRY OF ORIGIN: USA

FIRST PRODUCED: 1989

WINGSPAN: 52.4m (172ft)

RANGE: 9,656km (6,000mi)

TOP SPEED: High subsonic

WEAPONRY: Nuclear warheads, advanced cruise missiles, Mark-84 bombs

KEY TECHNOLOGY

The advent of fully working military radar systems during the Second World War marked the need for stealth technology. The B-2 makes itself only partially invisible to radar, as its unique design is excellent at reflecting signals at a different angle, rather than straight back to its receiver. Additionally, the dark colour absorbs high amounts of light, while the tiny iron spheres used on its surface paint dissipate the radar energy as heat, so only miniscule amounts make it back to the radio transmitter.



Design, shape and even texture helps B-2s avoid detection in a way that no craft has done before

02 MARK I TANK

THE FIRST TANK TO EVER SEE BATTLE CHANGED CONFLICT FOREVER, HELPING ELIMINATE THE STALEMATE OF TRENCH WARFARE

Only 250 of these metal beasts were created and even less saw battle on the muddy Western Front, but the Mark I signalled the dawn of a new type of warfare. With the stalemate of the trenches wearing down both

sides in World War One, the tank was designed to be used as an armoured battering ram that could tear down enemy fortifications.

'Male' tanks were armed with three machine guns and one quarter-pounder gun, while the lighter 'female' versions contained six machine guns but less armour. The guns on the sides of this behemoth would mow down any infantry that would dare cross its path – at least that was the theory.

In its first few engagements, the Mark I regularly overheated and broke down and many were captured by the Imperial German Army. Conditions inside the tank were almost unbearable, with temperatures reaching 50 degrees Celsius (122 degrees Fahrenheit) and the loud machinery almost deafening.

TECHNICAL ASPECTS

COUNTRY OF ORIGIN: Great Britain

FIRST PRODUCED: 1916

LENGTH: 9.9m (32ft)

WEIGHT: 28 tons

TOP SPEED: 5.9km/h (3.2mph)

WEAPONRY: Two six-pounder (57mm) guns and two air-cooled machine guns

ARMOUR

One of the Mark I's biggest flaws was its structure. The armour was bulletproof but was prone to splitting the projectiles fired at the tank into shrapnel, which could injure the crew. In early models the tank crew were compelled to wear chain mail!

CREW

An eight-man crew would work inside a Mark I tank. Effective teamwork was difficult as the lack of light meant during battle the interior was in almost complete darkness. The excruciating noise meant that tactics and strategy were often incoherent.

DESIGN

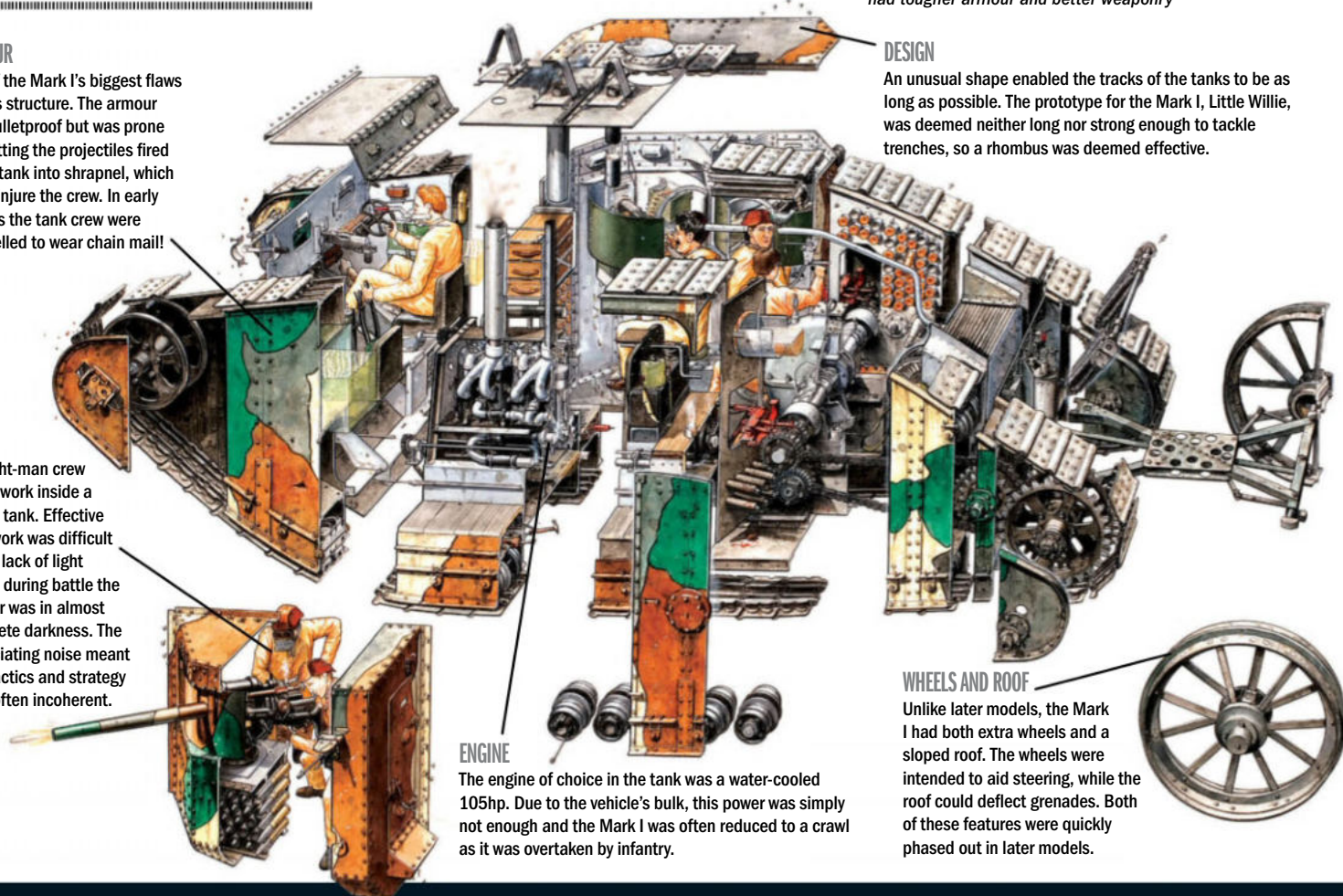
An unusual shape enabled the tracks of the tanks to be as long as possible. The prototype for the Mark I, Little Willie, was deemed neither long nor strong enough to tackle trenches, so a rhombus was deemed effective.

WHEELS AND ROOF

Unlike later models, the Mark I had both extra wheels and a sloped roof. The wheels were intended to aid steering, while the roof could deflect grenades. Both of these features were quickly phased out in later models.



As the war continued, improved versions were put into production, such as the Mark IV, which had tougher armour and better weaponry



HEAVY TANKS OF WORLD WAR ONE FROM THE MARK I TO THE MARK X

1915

'Little Willie' is tested as the first prototype of the Mark I.

April 1916

150 Mark I tanks are ordered to be built for the war in the trenches.

August 1916

The tanks make their debut just in time for the Somme offensive.

March 1917

The first Mark II tanks enter the fray, ready made with improvements over the original model.

May 1917

The vastly improved Mark IV is introduced onto the Western Front after the Mark III is used purely for training purposes.

July 1917

The new Mark VII is born after co-development with the USA. The VI had previously been cancelled after disagreements during production.

November 1917

476 tanks do battle at Cambrai and make significant advances into German territory across the Hindenburg Line.

April 1918

The first ever tank-to-tank battle sees Mark IVs combat German A7Vs.

September 1918

The Mark VIII is created after a joint project between the USA, Britain and France and remains in use until 1934.

1919

The last two 'Mark' models are created, with the IX a troop carrier. The X never makes it off the production line.

"TANKS STILL PLAY A MAJOR PART IN CONFLICTS ACROSS THE GLOBE – THE MARK I IS WHERE THEY ALL BEGAN"

The potential was seen in the Mark I though, so later versions of the tank would succeed where it failed. After small advances in the II and III, the Mark IV was a vastly improved machine. Containing much thicker armour and a better engine, this would have the greatest impact on the Western Front, with its successor only available in the latter stages of the war.

The tank became the new cavalry of the battlefield, and the various 'Mark' models played a big part in the emergence of tank dominance. The Mark IX was the final tank of the line to be built, but the design was still used after the Great War. Mark Vs were used by both sides in the Russian Civil War and two were even found in the Battle of Berlin in the last days of the Third Reich.

Although initially unreliable, these tanks were pioneers for modern warfare. During the Battle of Kursk in 1943 over 6,000 tanks duked it out on the battlefield. The Nazi blitzkrieg would have stalled without them, and during the post-World War years, tanks still play a major part in conflicts across the globe – the Mark I is where they all began.

The tank was a steep learning curve, so it included many different features, such as back wheels and extra roof protection



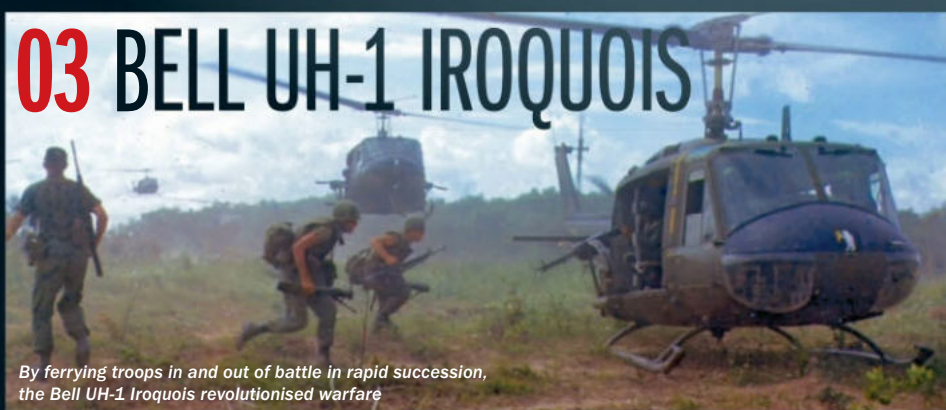
IN ACTION

THE BATTLE OF CAMBRAI: GIANT STEPS IN CATERPILLAR TRACKS

By late 1917 the role of tanks was increasing after many failed attempts to incorporate the mechanical monster in warfare. After struggling in the mud pits of the Somme, the dry plains of Cambrai were ideal for tank tracks.

The attack began on the morning of the 20 November as 476 of the machines advanced on German positions. The surprise attack was a resounding success, with German forces pushed back by 3.7 miles (6km) as the Hindenburg Line was breached for the first time during the war. On the first day alone, 8,000 prisoners and 100 guns were taken. However, a German counterattack nullified a sizeable portion of the British gains, as the deployment of tanks didn't quite wear down the German resistance completely. Nonetheless, the effectiveness of tanks had finally been proved and it was from here on out that the machine became an essential instrument of war.

03 BELL UH-1 IROQUOIS



By ferrying troops in and out of battle in rapid succession, the Bell UH-1 Iroquois revolutionised warfare

Nicknamed the Huey, this popular vehicle machine was vital for the deployment of American troops during the Vietnam War. Powered by a jet turbine that had never been installed on a helicopter before, 16,000 of

these small vehicles were made and are still in use by the US Drug Enforcement Agency (DEA). These multipurpose helicopters could ferry up to 14 soldiers to and from battlefields. M-240 and Browning guns could also be attached.

04 TIGER II



The Tiger II was beset by manufacturing issues after being rushed off the Third Reich production line in an attempt to save the war

One of the deadliest tanks of the entire Second World War, the Tiger II would have dominated the battlefield if it weren't for its inherent production flaws. Feared by the Allied forces, this armoured beast quickly

earned an aura of invincibility because of its thick armour and deadly 88mm turret gun. After the war, German Tiger II technology and prototypes were used for the future tanks of the 20th Century.

05 C-130 HERCULES



The C-130 is used in a variety of missions, from cargo drops, to humanitarian efforts to troop deployment

Since its first flight in 1955, there hasn't been a military aircraft quite as reliable and adaptable as the Hercules. Currently operated by over 16 countries, the C-130 can carry various payloads up to over

20,000kg. Capable of operating over a range of 3,800km, it also fulfils the role of a long-distance cargo and transport aircraft perfectly, and there's still seemingly no need to replace it, even after 60 years in service.



06 M1 ABRAMS MEDIUM BATTLE TANK

A VETERAN OF WARS ALL OVER THE GLOBE SINCE 1979, THIS MACHINE HAS HELPED SHUNT ARMoured GROUND WARFARE INTO THE MODERN ERA

The M1 Abrams battle tank was born after many failed attempts by the USA and Germany to create a tank to rival the Soviet T-72. By 1979 the US had decided to go solo and the outcome was the M1 Abrams, which excels in the three key areas of tank warfare: firepower, protection and mobility. It was produced six years after the Yom Kippur War, which saw the largest tank battle since the Second World War. An all-weather vehicle, it still plays a major role in the US Army, with the ability to go head-to-head with other armoured vehicles, while providing infantry support and mobile firepower.

It served during the Gulf War, in Afghanistan and the 2003 invasion of Iraq. In all these conflicts the Abrams outclassed its rivals with superior range, night vision and thermal sight capabilities.

Only nine were put beyond repair in the whole of the Gulf War and the tank was essential to the success of Operation Desert Storm. Nearly 9,000 have been constructed for use worldwide and it's still in production after 35 years. Many have described it as being the first US tank to outclass its Soviet equivalent and many variants on the original design have been made due to its success. The model M1A2 is undoubtedly the most advanced tank operating in the world today.

Above: With tough armour all over, the M1 Abrams is highly resistant to most gun and missile fire

Below: The power of the Abrams' 105mm main gun has been upgraded to a 120mm version on the M1A1 and M1A2

KEY TECHNOLOGY

A tough duo of rolled homogeneous steel plates and Chobham laminate, keep the tank and its crew well protected. Both HEAT warheads and Sabot rounds cannot puncture the inner layer of the tank and the structure also prevents injury by having armoured storage for the tank's own armaments. Better still, and much more inconspicuous, is an air-purification system dedicated to repelling biological attack.

TECHNICAL ASPECTS

COUNTRY OF ORIGIN: USA

FIRST PRODUCED: 1979

LENGTH: 9.83m (32.25ft)

WEIGHT: 63,000kg (139,080lb)

TOP SPEED: 67km/h (42mph)

WEAPONRY: 120mm main gun, 12.7mm Browning

M1HB anti-aircraft heavy machine gun, 2x 7.62mm

M240 machine guns, 2x 6 smoke grenade discharges



07 AK-47 ASSAULT RIFLE

A COMBINATION OF A SUBMACHINE GUN'S FIREPOWER, WITH ALL THE ACCURACY OF A RIFLE

The distinctive curved magazine of the AK-47 is a common sight, with an estimated 100 million having been manufactured



The StG 44 was a German assault rifle produced at the tail end of World War Two. If it were produced earlier, it would arguably have had a drastic affect on the fortunes of the Third Reich – that's how advanced it was. Combining the best qualities of a submachine gun and a rifle, it was one neat package of destruction. The Allies needed an answer – it came in 1947 in the form of the AK-47.

Created in the USSR by inventor and engineer Mikhail Kalashnikov, the weapon's ability to fire intermediate power cartridges at a rapid rate put it head and shoulders above the competition and paved the way for a wave of assault rifles such as the M16 and FAMAS.

It saw widespread action in the Korean War and was only upstaged in the Russian military by the mid-1970s with the development of the AK-74. There have even been stories that during the Vietnam War, US GIs stole AK-47s from the Viet Cong as they were still superior to the American equivalents. Currently, it's the weapon of choice for militant groups the world over due to its low cost and general all-round effectiveness. More AK rifles have been produced than all the other assault rifles combined and it remains a key player in warfare.

KEY TECHNOLOGY

The AK-47 was a phenomenon in so many ways and raised the bar in land warfare. The next stage of assault rifle evolution after the StG 44 took the first steps – its selective fire enabled it to be used in all areas of war, from street-to-street skirmishes to raids on fortified positions. An incredibly basic weapon for all its advances, the rifle only weighs four kilograms (9lbs). It can be stripped and cleaned in under a minute, making it invaluable for tense battlefield situations.

TECHNICAL ASPECTS

COUNTRY OF ORIGIN: Soviet Union
FIRST PRODUCED: 1947
LENGTH: 88cm (35in)
ACTION: Gas-operated rotating bolt
RANGE: 400m (1310ft)
AMMUNITION: 7.62x39mm rounds

08 THE BLACKBIRD

Originally kept under wraps as a US and UK secret Black Project, the Lockheed SR-71 Blackbird was a technological wonder. The fastest plane of all time (reaching an eye-melting 2,530km/h (2,193mph), it was also one of the highest-flying military aircraft ever made. The plane was so fast, it even broke both the sound and heat barriers and required a specialist fuel and titanium structure to fly.

Devised after the U2 incident in 1960, the Blackbird demonstrated that the US needed a quicker and higher-flying reconnaissance aircraft that couldn't be tracked by the USSR. The designers of the Blackbird described it as their hardest ever assignment, as the plane was so different and advanced compared with anything that came before. 32 were constructed in total and served as scouting aircraft for over 30 years. The details of a vast majority of these missions are still classified.



The altitude and speed of the Blackbird meant pilots were forced to wear astronaut-like suits that protected them from the elements

09 ENIGMA MACHINE

Highly sophisticated devices for their time, Enigma machines held the key to many of the Wehrmacht's secrets. An electro-mechanical rotor cipher machine, the device was used by the Third Reich to transport and receive covert messages and tactics without the risk of being decoded.

Capable of millions of combinations, the Allies captured many of these messages but were only able to break the code in 1940 with the help of Polish experts from the Government Code and Cypher School (GC&CS) in Bletchley Park, England. The code was eventually broken by using a device called a Bombe, which could attempt hundreds of potential codes per minute until it found the correct combination.

It has been speculated that this breakthrough shortened the

war by up to two years, such was the effectiveness and importance of the machine.



The Enigma machine was so effective, British agents had to play down their successes so the Axis powers didn't get wind of their discovery

10 AH-64 APACHE ATTACK HELICOPTER

THIS HELICOPTER GUNSHIP IS THE TANK'S WORST ENEMY AND CAN ELIMINATE VAST SWATHS OF HEAVY INFANTRY IN SECONDS

Since their inception in the late 20th Century, advanced attack helicopters have been a nightmare for troops both on land and at sea – the most notable of these is the AH-64 Apache.

Prior to attack helicopters, infantry could advance along territory, with infrequent air strikes from bombers being their only airborne concern. Now, with a chain-gun-equipped helicopter prowling the skies, tactics and strategies have become very different. The AH-64 can be assigned to almost any mission, from destroying fortifications, to delaying and disrupting the movement of troops. It's even more dangerous at night, with the help of Target Acquisition Designation Sight (TADS) and Pilot Night Vision Sensors (PNVS).

The gunship's M230 chain gun can strafe and lay waste to infantry, while Hellfire missiles can take down armoured vehicles, ships and

structures. If the Apache is threatened from the air, its Hydra rockets will combat most aerial rivals. The US Army has ordered over 800 of the machines since they were first introduced, while others have found their way into the Israeli and Egyptian air forces. The advanced attack helicopter reached its zenith in Operation Desert Storm, where it was used to decimate 500 Iraqi tanks and other armoured vehicles.

Apaches have a rapid response rate to enemy threats, and can be deployed far quicker than land-based vehicles. Additionally, the gunship requires far less space and fewer resources than fighter jets. The AH-64 can also be called upon in all manner of inhospitable conditions.

Naturally, various methods have been devised to combat the attack helicopter, and militants that come into contact with the Apache now carry rocket-propelled grenades.



The AH-64 has the ability to hover in wait and then unleash Hellfire and Hydra missiles to eliminate targets

TECHNICAL ASPECTS

COUNTRY OF ORIGIN: USA

FIRST PRODUCED: 1983

LENGTH: 17.73m (58.17ft)

WEIGHT: 7,270kg (16,027lb)

TOP SPEED: 149kn (273km/h/170mph)

WEAPONRY: Hellfire laser-designated missiles, M230 chain gun, Hydra rockets

COCKPIT

State-of-the-art technology fills the two-person cockpit, controlling the advanced weaponry, long-range communication systems and pinpoint navigation systems.

COMMUNICATION, WEAPON AND NAVIGATION SYSTEMS

RADONE TARGETING SYSTEM

AUTOMATIC CANON

When missiles or rockets can't be used, a 30mm chain gun is used to blast through other aircraft, infantry and smaller buildings.

COMPOSITE FOUR-BLADE MAIN ROTOR

LIGHT AND CAMOUFLAGED FUSELAGE

ENGINE

Helicopters are reliant on their manoeuvrability, so the T700 Turboshaft engine gives the Apache a climb rate of 663mpm (2,175fpm) and a top speed of 284km/h (177mph).

IN ACTION HELLFIRE IN THE PERSIAN GULF

In collaboration with the F-117 Nighthawk Stealth Fighter, attack helicopters took on Saddam Hussein's forces in the 1991 Gulf War. The Iraqi Army was relatively well equipped after purchasing many tanks from the USSR, but they didn't stand a chance against the might of the Apache, as missiles and machine-gun fire tore through the heavy armour.

They were so successful that only one was downed in reply to hundreds of Iraqi tanks. Saddam's forces retreated from Kuwait within 100 hours, as the invasion of Kuwait ended abruptly. Into the new millennium, Apaches still held a key role in the US Army as a support vehicle in the Kosovo and Afghan wars. It's now also been utilised in the Israeli Army.

HELLFIRE MISSILES

Laser-guided, a Hellfire air-to-surface missile can rip through armoured vehicles and bunkers with ease. They are particularly effective against tanks.

HYDRA ROCKETS

Slightly lighter than the heavy-duty Hellfires, Hydra rockets can be used against other aircraft or smaller ground targets.

FLYING ON THE FRONTLINE

MAJOR ALEX HARRIS OF THE UK ARMY AIR CORPS SHARES HIS EXPERIENCES OF FLYING APACHE AIRCRAFT

HOW LONG DOES IT TAKE TO TRAIN TO FLY AN APACHE? IS IT INITIALLY DIFFICULT TO HANDLE?

You first have to complete the army pilot's course, which is modular and takes about two years. Once you have been awarded your army flying wings you might get selected to train on the Apache. The first part is called Conversion to Type (CTT), which teaches you how to fly the aircraft and lasts about six months. If successful, you move on to the next phase which is called Conversion to Role (CTR). This teaches you how to fly the aircraft in all scenarios and also lasts six months.

The culmination is the live firing of all the Apache weapon types in Arizona, USA. You are then a qualified Apache pilot. Even after all of that, you are constantly learning and attending different courses. These could be such things as learning to operate from a Royal Navy ship, or becoming a weapons instructor. Initially it can be quite difficult to fly, as it's much larger and more complex than the training aircraft.

The courses are all progressive though and you can't advance until you have mastered the basics. The aircraft has a very good stabilisation system to ensure that it's a steady platform from which to launch weapons, so when these are working for you it is a great aircraft to fly.

WHAT WAS THE APACHE'S ROLE IN THE THEATRES YOU FLEW IN AND HOW EFFECTIVE WAS IT?

It's main role was to support the ground forces with precision weapons when they got engaged by the Taliban and were pinned down. With a talk on over the radio from the ground forces, the Apaches were able to identify the enemy, single them out from the population and built-up areas, before decisively engaging them.

We also escorted the Chinooks that carried the Medical Emergency Response Team (MERT). This life-saving asset often picked up seriously wounded casualties from the battlefield while the firefight still went on around them. They were a big target for the Taliban and it was our job to try and destroy the enemy before they could engage them.

DOES THE HELICOPTER FORM PART OF A SQUAD OR IS IT FLOWN SOLO WHEN ON THE ATTACK?

Although they can work alone, Apaches would normally work as a pair. This is known as a Flight. During an engagement one aircraft would act as the shooter and the other as the looker. This means that while one is zoomed in on the target, the other aircraft is looking out wider for more targets in depth.

The looker will also put himself in a position to follow up on the first aircraft's attack if necessary. If the Squadron is fighting together you may find two or more Flights working in an engagement area to prosecute targets.



HOW DOES YOUR CO-PILOT ASSIST YOU?

While the Co-Pilot Gunner is heads-down in the sight looking for enemy, the pilot is looking after the safety of the aircraft. He is monitoring the systems and ensuring that all is as it should be, but more than that he is watching for any close-in enemy trying to shoot them down. With the Helmet Mounted Display, the pilot is only a couple of button presses away from firing the 30mm. It can be slaved to his head position so that wherever he looks, all he has to do is pull the trigger and he is firing on-target.

HAVE YOU EVER HAD TO MAKE A EMERGENCY LANDING?

In Afghanistan on Very High Readiness (VHR) we got a call to go and support some ground forces who were under fire. However, not long after take off, one of our two engines developed a serious fault and started to break up, so we had to shut it down. Because of the weight of the weapons we had on board and the fact that our performance was low in the hot and high conditions, we were unable to maintain level flight and so started to descend to the desert floor.

We worked out that we could just about make it back to Camp Bastion before we would hit the deck, so we nursed it back to the Apache landing strip, landed on and parked up. We jumped straight out of that one and moved our kit into the aircraft next to it, getting back out in under five minutes. We eventually got to the site of the battle and were engaging with hellfire missiles and 30mm within minutes of arriving.

WHAT WAS YOUR MOST MEMORABLE FLIGHT?

Probably the first time I ever fired the weapons in a combat situation. We were fighting in the middle of a city and some enemy armed with heavy weapons and suicide vests had taken over the top two floors of a hotel that overlooked a friendly camp. They were firing down into the camp and causing friendly casualties. We arrived not long after it began and I remember thinking that if I got this wrong in such a built-up area, then the consequences could be terrible. However, the training soon kicked in and operating as a crew and as a Flight, we successfully defeated the enemy. I do remember afterwards that the hotel had some serious holes in it and I'd have some explaining to do when I got back to base.

11

HMS DREADNOUGHT

THE DAWN OF THE FIRST DREADNOUGHT BATTLESHIP
REVOLUTIONISED NAVAL WARFARE PRIOR TO TWO WORLD WARS

If there's one war machine that demonstrated the intensity of the Anglo-German arms race, it was the Dreadnought class of battleship. The first, HMS Dreadnought, was completed in 1906 and completely eclipsed what came before. With its steam turbine powerplant, it could roar through the waves at high speeds while aiming the most heavily-armed naval guns in history at an enemy vessel. It was the first vessel to focus entirely on 'big gun' armament, which had a range of a massive 22.8 kilometres (14.2 miles). The guns were controlled by all-new electronic transmitting equipment that could aim the artillery incredibly accurately for the time.

Dreadnought was even the first ship to house the captain and officers nearer the bridge at the front, unlike the old style seen on tall ships in the age of sail. With such advanced armament and technology, the design became immensely popular and by 1914 the Royal Navy had constructed 19, while the Imperial German Navy had 13 in its fleet. The impact was so great that only a year later 'Super-Dreadnoughts' were being produced. The Dreadnought class had revolutionised the war at sea and a constant stream of updated models would follow right up until the height of the Cold War, when nuclear submarines began to change naval combat once again.

TECHNICAL ASPECTS

COUNTRY OF ORIGIN: Great Britain

FIRST PRODUCED: 1906

LENGTH: 160m (525ft)

WEIGHT: 18,400 tonnes

TOP SPEED: 21 knots (39kmh/24mph)

WEAPONRY: Ten 305mm guns, 24 76mm guns, five torpedo tubes

KEY TECHNOLOGY

Without the steam turbine, the Dreadnought class of battleships would have not been the significant machine it was. The innovative technology was a British invention from 1884, but this was the first time it would be used on a warship. The system replaced the triple-expansion engine that had been used so extensively in older ships and made the HMS Dreadnought the fastest battleship in the world. With the new mechanism, the battleship now had a range of approx 12,260km (7,620mi).

The Minigun enabled a weapon with the power of the M61 Vulcan to be used on ships, turrets and armoured vehicles



12 M61 VULCAN

THE GATLING GUN OF THE MODERN ERA, THE M61 VULCAN SHOWCASES THE TRUE POWER OF CONTEMPORARY HAND-OPERATED WEAPONS

A gigantic weapon of war, the M61 Vulcan was initially devised as an anti-aircraft gun. Its rotating six-bolt barrel gives it a much higher rate of fire and reliability than single-barrel machine guns, which would overheat after persistent use.

An ammo belt was originally used to feed the bullet-hungry firearm, but after a jamming problem the belts were replaced by a linkless feed system. The gun is powered both hydraulically and electrically by aircraft and can fire both incendiary and armour-piercing rounds. The invention of the weapon gave fighter jets an alternative to using missiles at short range and has one of the highest firing rates of any machine gun. The M61 has also been used on the ground as an air defence system in armoured vehicles and its successor, the M134 Minigun, was used in helicopters as a response to RPG fire from the ground.

The M134 has made the weapon class much more effective, as it can be placed on gun emplacements. This scaled-down version of the original made the weapon more readily transportable but with a decreased rate of fire. Despite its inability to be carried and fired by a single infantryman (as is often the myth), the M61 Vulcan has made all types of military aircraft much more resistant to ground fire and more effective at taking out ground units. Its high rate of fire means successful hits are achievable even at jet speeds.

KEY TECHNOLOGY

Overheating was always an issue with machine guns with a high rate of fire, but the M61 Vulcan managed to remedy this downside. By using six separate barrels firing 1,000 rounds a minute, none of the systems would overheat or malfunction but 6,000 rounds of ammunition would still be fired off in a minute's worth of firing. This was extremely useful on military aircraft where a fault could not be fixed mid-flight.

TECHNICAL ASPECTS

COUNTRY OF ORIGIN: USA

FIRST PRODUCED: 1959

LENGTH: 182cm (72in)

ACTION: Hydraulically operated belt-fed unit

RATE OF FIRE: 6,000 rounds per minute

AMMUNITION: 20x102mm rounds

13 B-52 STRATOFORTRESS

This gigantic bomber was one of the biggest and most-powerful aircraft ever made. Powered by eight engines, its original purpose was to carry atomic bombs behind the Iron Curtain if relations with the Soviet Union soured. Thankfully, it never had the opportunity to deploy its one-megaton nuclear warhead, so it was confined to bombing missions using conventional munitions.

It proved to be very versatile plane, carrying up to 27,216 kilograms (60,000lbs) of

bombs ranging from nuclear to precision-guided cruise missiles. The B-52 was hugely effective during Vietnam and the Gulf Wars and its descendants have been in frequent use in Iraq and the Balkans. The plane's sheer bulk means that the B-52 is also used as a carrier for air rocket launches. The success of this war machine has meant that it's now the longest-serving bomber in US military history and is set to remain in operation until 2040.



The B-52 is an exceptional air launcher. Here it is (inset) carrying two Lockheed D-21 reconnaissance drones

14 HUMVEE



The HUMVEE saw widespread use in the Gulf War and has become an integral part of the US Army since

After the Vietnam War, the aging US M151 jeep was in drastic need of an upgrade. The result finally came in the early 1980s, when the High Mobility Multipurpose Wheeled Vehicle (HMMWV/HUMVEE) was developed.

Designed as an infantry support vehicle, the HUMVEE features great all-round capabilities and could even be dropped into battle from the air. Lightweight and four-wheel drive, the vehicle is highly flexible and can perform a

variety of battlefield and reconnaissance roles. It provides an essential middle ground between surveillance and the heavy artillery rolling in.

A HUMVEE can carry a variety of equipment, from machine guns to missile launchers, and so can also act as a store for weaponry and ammunition. Since its inception there have been numerous improvements on the original design, and the vehicle has subsequently become a staple of the US Army.

16 ZUBR-CLASS LCAC MILITARY HOVERCRAFT

The largest class of military hovercraft in the world is the Zubr, which became an important part of warfare after its inception in 1988. Providing the same role that transport helicopters do for ground troops, the Zubr can sealift men, tanks and other armoured vehicles right up to the shoreline coastal assaults.

There are currently nine in this class of military hovercraft in active service within the Russian, Ukrainian and Greek navies

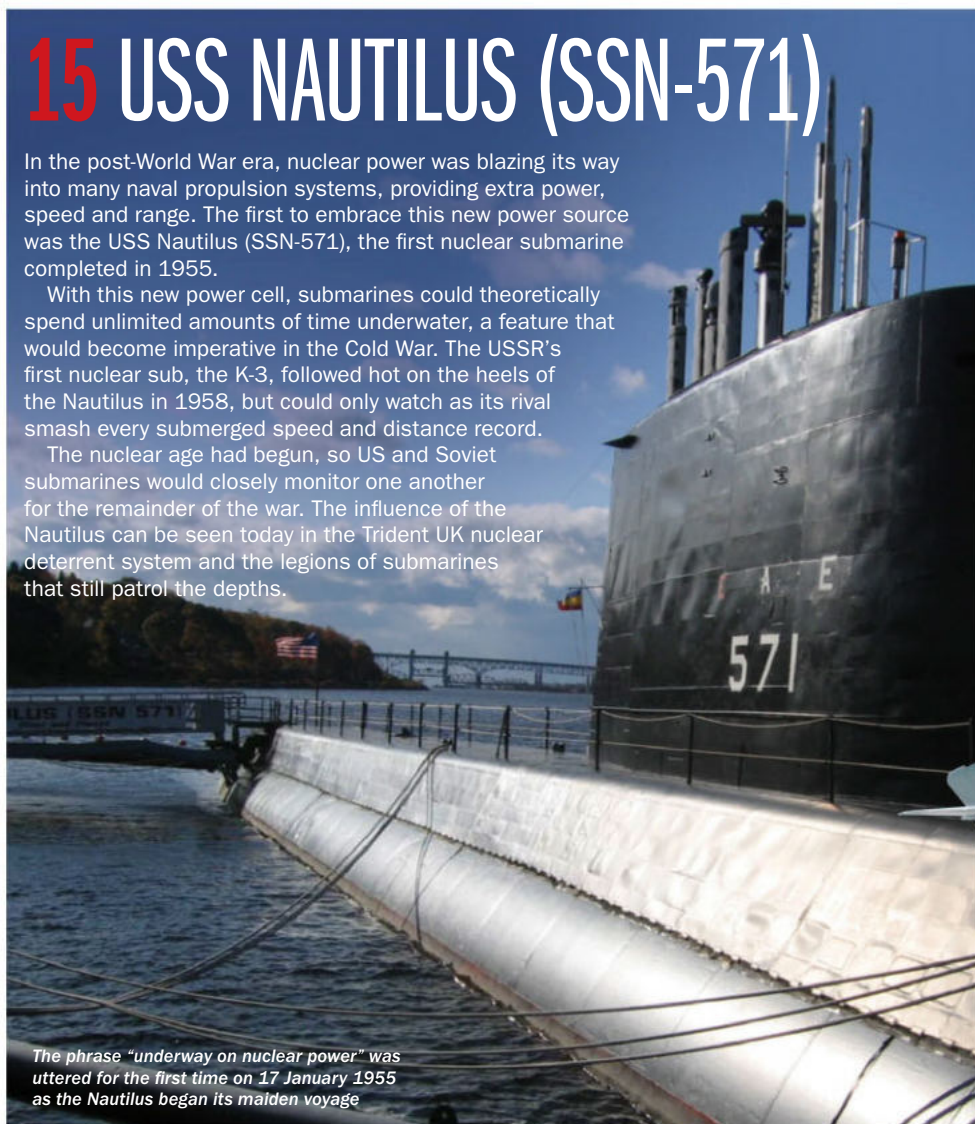


15 USS NAUTILUS (SSN-571)

In the post-World War era, nuclear power was blazing its way into many naval propulsion systems, providing extra power, speed and range. The first to embrace this new power source was the USS Nautilus (SSN-571), the first nuclear submarine completed in 1955.

With this new power cell, submarines could theoretically spend unlimited amounts of time underwater, a feature that would become imperative in the Cold War. The USSR's first nuclear sub, the K-3, followed hot on the heels of the Nautilus in 1958, but could only watch as its rival smash every submerged speed and distance record.

The nuclear age had begun, so US and Soviet submarines would closely monitor one another for the remainder of the war. The influence of the Nautilus can be seen today in the Trident UK nuclear deterrent system and the legions of submarines that still patrol the depths.



The phrase "underway on nuclear power" was uttered for the first time on 17 January 1955 as the Nautilus began its maiden voyage

"THE ZUBR CAN SEALIFT MEN, TANKS AND OTHER ARMOURD VEHICLES RIGHT UP TO THE SHORELINE"

17 MIG-15

The Mikoyan MiG-15 emerged from the Iron Curtain in 1950 as a total shock to the Western world. Its first assignment was in the Korean War, where it outclassed the US fighters and single-handedly caused the American F-86A Sabre to be rushed off the production line. 8,000 MiGs were built within five years as it set the template for future jet fighters.

Though a marvel of Soviet engineering, MIG-15s were powered by British Rolls Royce engines



A specialised Machine Gun Corps was created in 1915 to give the weapon a higher status in the British army



IN ACTION

THE SOMME MACHINE-GUN MASSACRE

With more than a million men killed, the 1916 Battle of the Somme is believed to be one of the bloodiest battles in human history. This was partly down to the lack of tactics to combat the new weapon of the generation, the machine gun. Unaware of the awesome power of the weapon, both sides were sitting ducks when wading through the thick mud against a wall of bullets. Reports suggested that Vickers guns alone fired in excess of a million rounds over a 12-hour period. Originally used as a defensive battlefield support weapon, the Battle of the Somme showed just how devastating machine-gun fire could be when used in an offensive capacity. With the stalemate of trench warfare ending, it was imperative that machine guns became lighter and more compact. This led to the invention of lighter machine guns and, latterly, assault rifles.

18 VICKERS MK1

DEVELOPED IN THE EARLY 20TH CENTURY, THIS MACHINE GUN WOULD REVOLUTIONISE THE WAY BATTLES WERE FOUGHT AND HOW ARMIES WERE TRAINED

It may not have been the first machine gun, but the Vickers MK 1 was essential to the rapid changes in warfare at the start of the century. Both the Gatling and Maxim guns preceded it, but its development in 1912 saw the Vickers become the most reliable and versatile machine gun of its day. By using a water-cooling jacket around the barrel, it could fire off rounds more accurately and quicker than ever before. The wall of bullets spelled the end for infantry formations and accelerated the beginning of trench warfare and no-man's land. Huge pitched battles with massive assembled infantry divisions would be no more.

Weighing in at 20 kilograms (44 pounds), the gun would be placed in a hidden position and fired on unsuspecting foes. Its bulk meant it had to be static to be effective, but in such a slow-moving conflict, this wasn't a problem.

However, it was more than just a gun – the Vickers would contain a water-condensing can and hose, a wooden sight, ammunition box and a canvas jacket. All this would be operated by a crew of up to six soldiers. Without a water supply (one batch would evaporate after 750 rounds had been fired), it would quickly overheat, so gas-powered machine guns soon became preferred.

The Vickers's counterparts in the field of battle were the German MG08 and French Hotchkiss. The gun was so popular that 12 were being made every week for the British

Army and 39,473 were in use by 1918. The Vickers Company even had to lower its price to £80 per gun, so the government could finance the demand. In fact, the guns proved to be even more versatile than first thought and, armed with an interrupter gear, were attached to the fighters of the Royal Flying Corps. The fighters were now able to take on the Imperial German Air Force in ever-deadlier dogfights.

As the Great War wore on, the Vickers was slowly phased out by the Lewis gun, which boasted improved reliability and accuracy. However, the Vickers name did make a comeback with later gas-operated models lasting up to the Second World War. In fact, the British Army only considered the weapon completely obsolete in the late 1960s. The

TECHNICAL ASPECTS

COUNTRY OF ORIGIN: Great Britain

FIRST PRODUCED: 1912

LENGTH: 58cm (38.5in)

CALIBRE: .303in

RATE OF FIRE: 450-550 rounds per minute

FIRING RANGE: 4,100m (13,451ft)

gun was an important template for later weapons, such as the MG32 and Browning, and was the first to successfully work on and improve the Maxim gun. Warfare has never been the same since.

FIRING MECHANISM

The Vickers had an operating life of around 18,000 rounds before the accuracy of the weapon began to falter. Spare barrels were carried by gun teams, as well as a tripod to keep the gun steady.

COOLANT SYSTEM

Many of the first generation of belt-fed machine guns were water-cooled. On the Vickers a jacket of water would surround the barrel to cool the mechanism and enable it to fire for longer periods of time without overheating.

OTHER USES

As well as cutting down infantry regiments, the Vickers could be tilted vertically to use as makeshift artillery. A muzzle-booster could also be fitted to the mechanism to improve the rate of fire.



MACHINE-GUN LEGACY

THE VICKERS' RIVALS AND THE GUNS IT WOULD INFLUENCE

MG08

The German machine gun of choice in the First World War, the Maschinengewehr 08 was very similar to the slightly older British Maxim gun. At its peak, over 14,000 were being churned out of German factories every month and it was upgraded to an air-cooled model in 1918.



HOTCHKISS

The most cumbersome of all the WWI machine guns, the French Hotchkiss had a lower fire rate than the MG08 and Vickers. As the war went on, the French switched to using the Chauchat light machine gun as more mobile firearms became preferable.



LEWIS GUN

Used by the British in the Great War, the Lewis gun used a circular magazine rather than a belt-fed mechanism. This highly effective weapon was nicknamed the 'Belgian Rattlesnake' by the Germans and was used in unison with the Vickers. It began to phase the Vickers out as it was discovered that six could be made in the time that one Vickers could.



MG34

The MG34 was one of the most versatile of the post-Vickers guns. The Wehrmacht created the Maschinengewehr 34 so it could be used on a bipod, a tripod or even without a mount. Effective and powerful, it was replaced by the MG42, which is considered once of the best machine guns of all time.



M1917 BROWNING

Perhaps the longest serving of all machine guns of the era, the M1917 was used from World War One right up until the Vietnam War. It was designed by the USA and signified their development as a military power, as before the Browning, their machine guns were very out-dated compared to the European equivalents.



Flamethrowers are unstable weapons of war, but there aren't many war machines that inspire as much terror



19 FLAMETHROWER

The turn of the 20th Century signalled the dawn of a devastating new weapon in warfare: the modern flamethrower. Yet another war machine devised to end the horrors of trench warfare, the flamethrower first saw battle on the Western Front as both sides attempted to flush out enemy trenches.

The original weapon was operated by two men and had a range of up to 40 metres (131 feet), however, they had limited usage as they only had enough oil for 40-second bursts.

Flamethrowers were later installed on tanks in the Second World War and were highly effective as a shock weapon. The armoured protection negated the weapon's lengthy reload times and a tank could store additional fuel to reload. Due to their inconsistent nature, flamethrowers have been gradually phased out of military use, but are still readily used by militant groups. These shocking weapons have encouraged the use of other incendiary weapons such as napalm and thermobaric bombs.

20 USS ENTERPRISE (CVN 65)

In 1962 a new supercarrier was born that would be the first nuclear-powered aircraft carrier ever built. Made of nearly 100,000 tons of metal, the USS Enterprise could carry over 60 aircraft and represented a new dawn for seagoing air bases.

Powered by eight reactors, it was thrust into action almost immediately, as it participated in the blockade on Cuba in the wake of the 1962

Cuban Missile Crisis. In 1965 it became the first nuclear-powered ship to engage in conflict as it entered the Vietnam War to provide support for the frontline troops. Nicknamed 'Big E', she is still the longest naval vessel in the world and has opened up a whole new era for supercarriers. The major carriers since include the entire Nimitz class of carrier and the forthcoming USS Gerald R Ford ship.



The Enterprise is a fully-functioning floating battlestation with a 1.8-hectare (4.5-acre) flight deck and a 1.4-hectare (3.5-acre) hangar

Alamy, DK Images, Corbis

The border between the two nations is the most heavily militarised perimeter in the world and runs over both land and sea





BRIEFING

The Korean conflict

Decades of warfare, an infamously oppressive regime and the most heavily armed border in the world – welcome to the Korean Peninsula

WORDS JACK GRIFFITHS

North Korean international relations are at a low ebb. Military tension between the North and South has risen once again as artillery fire is traded over the demilitarised zone that separates the two nations. The Hermit Kingdom has landed blows in the United States too, with North Korean cyber attacks alleged to have hit American film studios. The situation in the North fluctuates frequently as the country and its leader Kim Jong-un continue to send out mixed messages. Almost completely isolated from the international community, even the UN must tread carefully when engaging in talks on their growing nuclear program and poor human rights record. Meanwhile, South Korea continues to prosper. The hub of many successful technology and automotive companies, its model of society and economy make it the thirteenth richest country on Earth; a world away from the famines in the aid reliant North.

For two countries so culturally close to each other, both historically and geographically, the contrast is stark. The story of Yeonmi Park in particular exaggerates the seemingly insurmountable differences between the two nations. Now 21, she managed to escape her country of origin in 2007 and make her way to South Korea by travelling covertly through China and Mongolia. Her experiences of forced labour camps and summary executions in the country have alerted much of the international community to the conditions in North Korea.

The reason for the vast gulf between the two countries lies in the history of the peninsula. United until 1945, the country was divided by the USA and the USSR and two separate states were formed, the ROK (Republic of Korea) and the DPRK (Democratic People's Republic of Korea). The result has been a

lack of opportunities for the Korean people to forge their identity and the diluting of a once rich culture by stronger forces. The three-year Korean War (1950-53) demonstrated just how fractured the country was, but not many could have foreseen just how secluded the North would become. Having only three rulers and one party since the country divided, it is quite unlike anywhere else on Earth; while the South is becoming more and more affluent and integrated into the international community. Here's the story of a very eventful 120 years.

A united Korea 1894-1945

The roots of the current situation can be traced all the way back to the First Sino-Japanese War. China's stake in Korea was finished after



THE KOREAN REGION AT WAR: HOW EVENTS HAVE UNFOLDED

1894-1895

Japan is victorious over China in the First Sino-Japanese War. China loses both land and influence in Korea.

1904-1905

The Treaty of Portsmouth ends the Russo-Japanese War and Japan gains full control of Korea.

1910-1945

The Japanese colonial rule over Korea is brutal as they attempt to create a state with their influence, traditions and culture.

1945

Korea is divided into two zones after World War Two. The 38th Parallel is used as the division boundary.

a sweeping victory by the outnumbered, but much more modernised, Japanese military. The end of Chinese rule initiated a shift in power in south-east Asia as Imperial Japan began dreaming of further conquest into the mainland. The next victim of the Japanese Empire would be the Russians, who were defeated in 'the first great war of the 20th Century', the 1904-1905 Russo-Japanese War. Korea was once again caught in the middle and the Japanese were once again victorious as the Treaty of Portsmouth consolidated Japan's power in Korea and flushed out the Russians. In 1910, Korea was officially annexed by Japan.

The Japanese occupation of their country did much to antagonise the Korean people and sow the seeds for the hatred and distrust currently felt in the North. Japan ruled with an iron fist. Used as a colony to supply the Japanese with food from the fertile lands of the Hamgyong and Kangwon Provinces, the Koreans were seen as inferior to their Japanese overlords. There was significant

urban growth in the country but repressive alien rule ultimately led to unrest. The 'March First Movement' was a nation-wide peaceful demonstration in 1919 that led the Japanese to execute thousands of Koreans. Despite the spilling of blood, the demonstration loosened Japan's grip with Korean newspapers and even a political party, the Sin'ganhoe (New Korea Society), now allowed. However this freedom was short lived, as Japan became more confident of its military might and returned to the old, brutal ways. To support the 1931 invasion of Manchuria, the occupying Empire banned the Korean language and demanded that the population adopt Japanese names and the religion of Shintoism in an attempt to expand their culture further. Naturally, this infuriated the Koreans who saw their national identity being taken away from them. Fourteen years and two atomic bombs later, the Empire of Japan was no more and Korea was free from its grip. However, with the order of power changing and the Cold War brewing, more struggles lay ahead.

Division and the road to war 1945-1953

With the defeated Japan out of the picture, Korea now came to the attention of the USSR and USA. With the amount of wars and border changes in such a small period, the region was not far from complete turmoil. Both of the superpowers realised this and acted in the best interests of the area (as well as their own interests, of course). The rise of communism concerned the United States greatly so it was determined to take as much of Korea as it could away from the Soviet Union. The result was the division of Korea down the 38th Parallel line into an American-influenced South and a Soviet-influenced North. The original plan was to unite the two parts of the country after the post-war rebuilding process had been completed. However, as the Cold War began to rear its ugly head, this never materialised.

One man who strived to create an independent, united Korea was politician Lyuh Woon-hyung. One of the few who believed in a peaceful resolution to the fragmented country,



American bombers couldn't have the freedom that they enjoyed in the Second World War with the Russian MiG-15s on their tail



1948

North Korea is now under Soviet influence and renamed the DPRK. The South is aided by the USA and is now known as the ROK.

1950-1953

The Korean War begins as North Korea invades the South. United Nations respond by sending a multinational force. Three years of fighting follows.

1962

The Third Republic in the ROK, lead by Park Chung-hee, initiates a new era of economic prosperity.

1972

A North-South Joint Communiqué is attempted by both nations but the idea is shelved after no progress was made after a year of planning

1988

Seoul hosts the 1988 summer Olympics and gradually becomes more and more accepted into the international community.

1991

North and South Korea announce that they have initiated an agreement banning nuclear weapons from the Korean Peninsula.

12 March 1993

The DPRK withdraws from the Nuclear Nonproliferation Treaty and begins stockpiling plutonium for its own nuclear research.

29 May 1993

The Nodong 1 missile is tested and it is believed to be a chemical or nuclear weapon capable of mid-range strikes.

Lyuh desired for a return to a unified Korea without any external interference; Japanese, Russian, US or otherwise. Unable to please both the far left and far right political parties who were popular in the country at the time, Lyuh was a lone voice. He was assassinated in July 1947 as Korea continued to tear itself apart. A lethal cocktail of extremist left- and right-wing groups and a fragmented society dominated by external interference, eventually resulted in war. Continued Soviet and American indecision allowed opposing factions to brew in the south and north of the country. Just as Lyuh had feared, the heart of Korea was being ripped out.

The Korean War began on the 25 June 1950 when North Korean forces, bolstered by Soviet arms and aid, moved south and captured Seoul. It is still not known whether it was a Soviet or North Korean idea to press southwards. The arrival of UN, US and British troops in September repelled the advance as the northern forces were driven back into their lands. The momentum was with



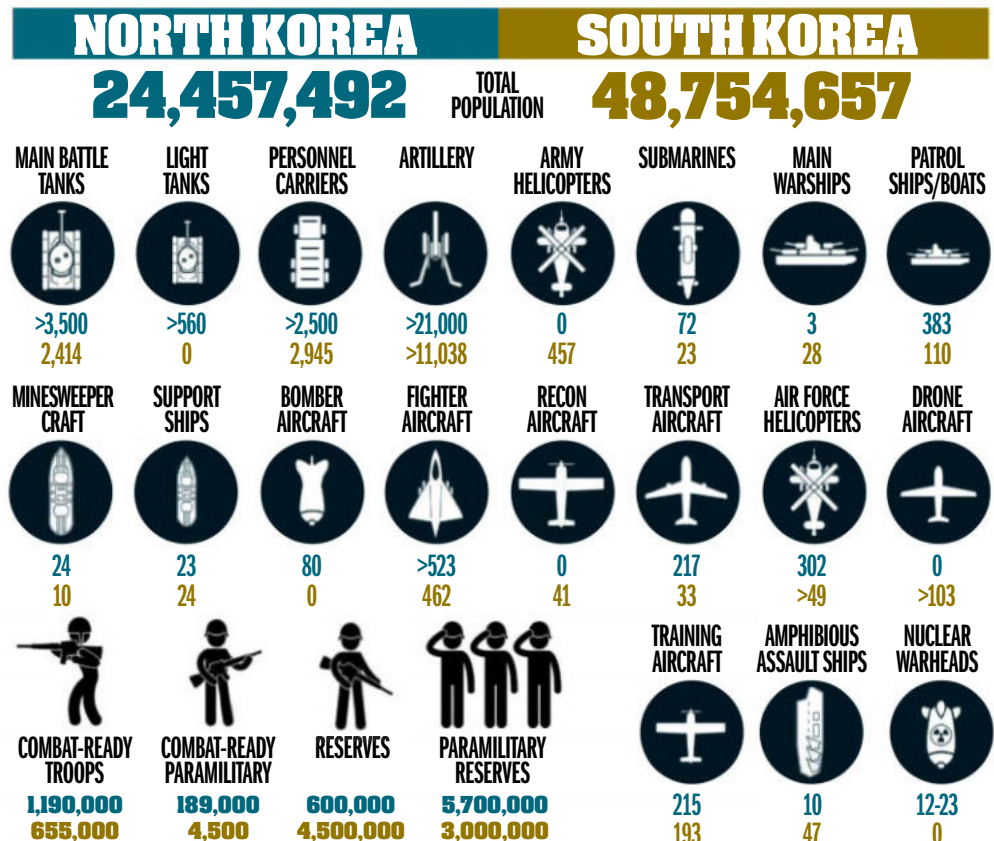
Approximately 36,000 US soldiers died in the Korean War as the tensions of the Cold War rose

Processions of raw military power are a common sight in the DPRK as the cult of the leader and one-party state remains strong



THE BALANCE OF FORCES ON THE KOREAN PENINSULA

Both Korean states are in the top ten for the largest military forces on Earth. Both are primarily made up of remnants from the Soviet and US eras as the two countries were mechanised during the Cold War. Since then the ROK has maintained a steady military presence while the DPRK has turned to more nuclear measures. On the 19 November 2014 the North threatened to undertake its fourth nuclear test, calling into question the balance of power on the peninsula once again.



February 1994

After being threatened with a trade embargo, North Korea allows the inspection of seven atomic sites. It does however refuse to let them take radioactive samples away.

June 1994

The DPRK states that nuclear inspectors will no longer be allowed in the country as it reportedly begins to make bombs again.

9 July 1994

Kim Il-sung dies and his son, Kim Jong-il, becomes leader. The first leader of the DPRK is named as the 'Eternal President of the Republic'.

21 October 1994

North Korea again allows inspection of its military sites and factories. Subsequently, the USA agrees to provide fuel oil to the DPRK.

1998

ROK President Kim Dae-jung begins the Sunshine Policy to encourage open relations with North Korea.

2000

ROK President Kim Dae-jung meets with Kim Jong-il in Pyongyang. This is the first meeting between the two nations in 50 years.

9 August 2003

The United States, China, Russia, South Korea and Japan hold new talks with North Korea.

19 September 2005

North Korea agrees to end its nuclear weapons program in return for security, economic and energy benefits.

the southerners but this changed with Mao Zedong's introduction of 180,000 Chinese soldiers into the fray. The UN troops were wary of this new threat so stabilised their lines rather than advancing as quickly as they had done previously. The frontline would continue to fluctuate for three years until a stalemate was called on 27 July 1953. The people of Korea knew they would not be waking up to a unified Korea for a long time.

Post-war Korea 1953-1998

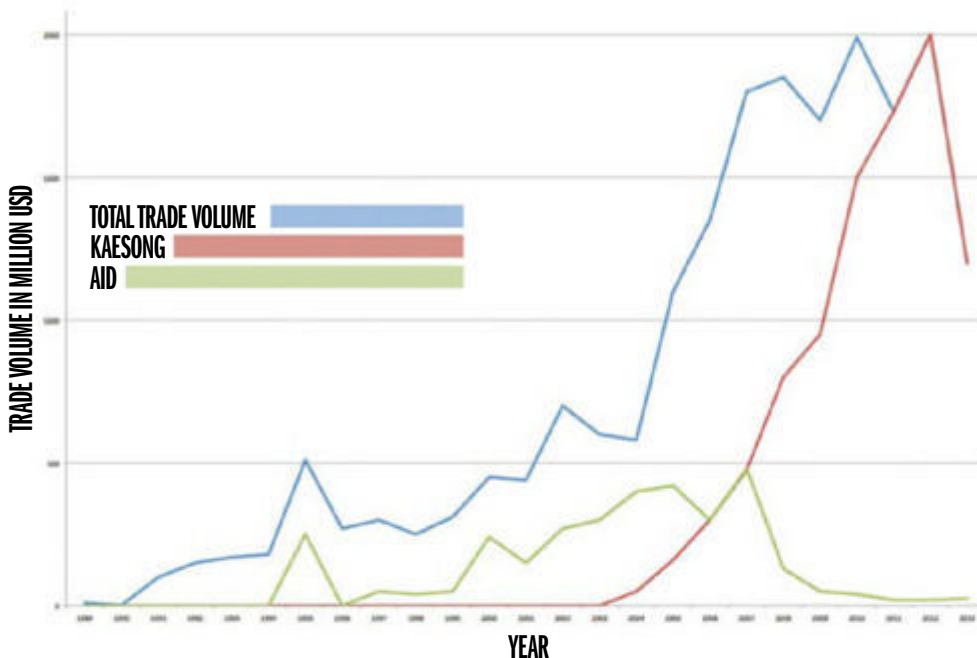
Approximately 3.25 million people lost their lives in the Korean War. The years after the conflict consisted of both sides appealing for international aid to help rebuild their crumbled societies. Kim Il-sung was the leader of the new Democratic People's Republic of Korea (DPRK) as the north side of the peninsula began to assume its current form. Kim was the choice of both China and the Soviets to lead North Korea into a new era. Prior to the war, Mao had sent 40,000 communists to North Korea to contribute to the 'nation building' of the new state. After the war, the external aid did not cease as the Soviets helped transform the agricultural DPRK into an industrial nation. From here on out, North Korea would become more and more reclusive. Bolstered by continued Soviet aid, Kim Il-sung's cult of personality grew as the one-party state began to consolidate its power. The state suffered a setback when famine gripped the country in the Seventies and again in the Nineties as the new Russian Federation withdrew its flow of aid. Estimates suggest that one million died as a result of the food shortages.

By 1993, the North began expressing a desire for a nuclear program. On the 12 March, the DPRK withdrew from the worldwide Nuclear Nonproliferation Treaty and began stockpiling reserves of plutonium. The fears of potential nuclear weapons launches grew in May of that year when it was revealed that the DPRK had been conducting tests on the Nodong 1, a missile that could potentially strike targets in South Korea and Japan. Although, these fears were not confirmed, the IAEA (International Atomic Energy Agency) demanded a search of North Korean atomic sites, to which the DPRK duly obliged. As the year wore on, North Korea became increasingly evasive over its nuclear affairs, sometimes being open about its plans while at other times, concocting secret nuclear operations and threatening other nations. On 8 July 1994, Kim Il-sung died and was replaced by his son, Kim Jong-il.

There were some steps taken towards achieving re-unification by both countries in this period. In 1972, there was talk of a North-South Joint Communiqué after delegates from both nations had held talks about a possible compromise. However this scheme was

INTER-KOREAN TRADE, 1989-2013

Trade between the two nations has hit various peaks and troughs in the last 25 years. These economical ups and downs correlate to international events. The sharp rise at the end of the 20th Century demonstrates the success of the Sunshine Policy and the creation of the Kaesong joint industrial region. As relations began to get frosty, so did the trade, as we can see in recent years.



The DMZ is one of the few locations where troops from both sides literally face off

scrapped after no progress was made after a year of planning and negotiations. Further attempts were made in 1985 and 1990 to no avail. Conversely, there were several events at the other end of the spectrum such as in 1968 when commandos from North Korea got within a mile of the presidential Blue House in Seoul before they were apprehended, while in 1983, DPRK agents attempted, unsuccessfully, to murder the leader of the ROK.

Over on the south side of the peninsula is a country that has debatably suffered to an even greater extent than the North. The UN and USA didn't provide as much direct aid as the USSR had done as the ROK came under a series of authoritarian governments. The first post-war leader of the ROK was Syngman Rhee who led a corrupt regime, which did not allow newspapers and restricted free speech. Economic problems and student riots in 1960 motivated the army to stage a coup and he was disposed of in 1961.

The next major stage in the ROK's history was the Third Republic that was led by Park Chung-hee from 1962 until 1979. Politically at least, this was another false dawn for democracy as Park commanded a regime based on martial law. However, despite its repressive nature, the South Korean economy began to boom after a series of successful reforms. This transformation can be considered

8 October 2006

The DPRK becomes the eighth country in history to launch a nuclear weapon as it detonates a nuclear device.

13 February 2007

\$400 million in oil and aid is promised to the DPRK if it starts its promise of demolishing its nuclear facilities.

27 March 2010

A ROK warship, Cheonan, sinks near the border with North Korea. It is believed that a North Korean torpedo caused the disaster. The DPRK denies involvement.

23 November 2010

Shells kill two ROK soldiers as one of the most serious clashes between the sides in decades follows. The two countries blame each other for starting the conflict.

19 December 2011

Kim Jong-il dies of a heart attack and is replaced by his son Kim Jong-un. The new ruler shows no sign of softening his approach.



28 February 2013

Kim Jong-un meets with former US basketball player, Dennis Rodman in a series of publicity stunts. Rodman declares that he will hold exhibition games in the country.

as the emergence of the modern ROK as education, transportation and industry also prospered. This progress was continued by Park's successor Chun Doo-hwan and the country even mustered enough wealth to host the Olympics in 1988. Living standards were continually rising as industry was eventually deregulated and democracy began to shine through. The 1998 election was the first to be done peacefully and democratically, and in the same year the potential re-unification of Korea went one step closer under the 'Sunshine Policy'.

The modern peninsula 1998-2014

At the tail end of the millennium, significant process was made for the possible re-unification of Korea. The Sunshine Policy was set up by new ROK president Kim Dae-jung. The result was an inter-Korean economic co-operative development known as Kaesong, the joint industrial zone. The now economically superior South gave rice and fertilizer to the struggling North as a gift of goodwill. ROK businesses were also encouraged to go north and create trade links and economic opportunities.

Further progress was made at the turn of the 21st Century with the first Inter-Korean summit. This was the first ever visit by a South Korean head of state to the DPRK and was an historic summit in the drive to reunite Korea. Kim Jong-il, in particular, was very talkative and open to the ROK representatives at the meeting. The following year, the supreme leader declared the need for new economic thinking if North Korea was to survive in the modern international environment. Economic delegations were welcomed from many countries while teams were also sent abroad for extensive economic co-operation. Rationing was still common in the country but the wheels were in motion for a move to a free market socialist economy.

Relations with the South were at an all time high as both declared for the first time that they had no intention to invade each other. Despite all this development, the US and UN were still very suspicious of the nuclear intentions of



The infrastructure network on the peninsula took a massive hit during the war as both sides tried to stem the tide of invasion

the North. There was a growing fear that Kim Jong-il had used the financial support to beef up his nuclear arsenal rather than the economy and society as promised. As a result, relations between the countries once again soured, with the South resentful of the North's apparent refusal to play ball. Kim Dae-jung was voted out of office in 2003 and replaced with a more hardline conservative government. The 'Nelson Mandela of Asia' had won a Nobel Peace Prize for his efforts, but re-unification was hardly a step closer. The apparent security complex of the DPRK had proved to be its downfall once again. Another summit was called in 2007 and a declaration was signed to promote joint economic, military and family reunion projects. However, within a year, tensions would rise yet again, potentially to the point of no return.

The Sunshine Policy was effectively annulled in 2008 and within two years this seemed like an excellent decision as events took a turn for the worse. On 27 March 2010, the South Korean warship ROKS Cheonan was torpedoed just off the two nations' maritime border. Forty-six sailors perished and, although it has not assumed responsibility, South Korea and the UN are convinced that the North was to blame.

If random strikes like this continue, South Korea will never consider re-unification.

In the international media, 2013 has been known as the year of the North Korean crisis. Under new leader Kim Jong-un, the DPRK has boasted that it has an advanced missile system ready to strike both South Korea and the USA. It has also advised the evacuation of all the embassies in Pyongyang as the country seeks further isolation. Even more significantly, the economic co-operative development that was devised during the Sunshine Policy was 'temporarily suspended' as 53,000 Korean workers stopped working. There were two contrasting responses from the countries involved. The USA decided to undertake a precautionary move and transported missile defence systems to Guam as well as deploying stealth fighters to patrol the peninsula. South Korea on the other hand offered the DPRK \$7.3 million in aid in a last chance saloon for their reconciliation.

Skip forward to the end of 2014 and the Korean situation is still as convoluted as it ever has been. Currently, both sides of Korea have active militaries that are among the largest in the world. This is a staggering statistic considering the size of the countries and it is this military tension that continues to hinder any hope of re-unification. Any hope that Kim Jong-un would be an easier nut to crack than his father has rapidly evaporated and the USA is now treating North Korea as a solid threat if the removal of NK-baiting Hollywood satire *The Interview* from cinemas in December 2014 following a suspected cyber-attack is anything to go by. While South Korea revels in a newfound economic prosperity, Kim Jong-un's 'Hermit Kingdom' remains reclusive and mystifying. Unless the cycle of tension is broken, it could be a long time until we see a unified Korea again.

“The US and other hostile forces, ignoring our magnanimity and goodwill, are viciously stepping up their manoeuvres in order to annihilate our republic politically, isolate it economically and crush it militarily”

Kim Jong-un, 2 April 2014

7 March 2013

New economic sanctions are placed against North Korea after its third nuclear test. The DPRK also threatens to strike the United States with 'lighter and smaller nukes'.

3 April 2013

The USA deploys an advanced missile defence system in Guam two years ahead of schedule to protect from the potential threat of a North Korean attack.

5 April 2013

A great example of inter-Korean reconciliation is ended after the North withdraws 53,000 workers at Kaesong, an industrial park jointly run with South Korea.

28 July 2013

South Korea announces \$7.3 million worth of aid for North Korea. This is followed by "one last round" of talks.

31 March 2014

More conflict as hundreds of artillery shells are fired across the western sea border. This happens a day after the North announced more nuclear tests.

22 November 2014

Sony computer systems are hacked, exposing personal details. North Korea are accused of the hack as *The Interview* is scheduled to be released.

27 December 2014

A North Korean army deserter kills four Chinese villagers with a handgun during a robbery in Nanping. Chinese authorities increased surveillance on the North Korean border.

Alamy: Corbis

Zeal & Steel: THE WARRIORS OF GOD

WORDS WILL LAWRENCE

Sworn to poverty, chastity and holy war with God's enemies, the fearsome warrior monks of the monastic orders ensured Christian power endured in the east for almost 200 years

When Pope Urban II took his place at the head of the Roman church at the end of the 11th Century, Christians and Muslims lived in tentative equanimity; no atrocities were rife. Yet this wily pontiff sought to boost papal authority, which had suffered a number of setbacks during the previous decades, and devised an ingenious plan. In 1095, when touring his homeland, he called for a crusade to reclaim Jerusalem from the 'infidel'. The Muslims had ruled the city of Jerusalem for more than four-and-a-half centuries. That was long enough – Pope Urban demanded its return.

Fortunately for Urban, and those who answered his call, the Muslim world was in disarray and the warriors of the First Crusade – a rather motley and dishevelled crew – stormed Jerusalem in a bloody assault during July 1099. Those that remained after its capture founded the Frankish realm of Outremer and the new Kingdom of Jerusalem.

Christians flooded in and many sites in the Holy Land became places of pilgrimage for the

devout – though travellers took great risks as they passed through hostile lands stalked by wild animals and yet wilder brigands.

The year 1119, for example, saw 300 pilgrims massacred at Easter near the shores of the River Jordan, while in the same year the Christians, edging their boundaries further into Muslim-held territory, suffered a crushing defeat at Sarmada. The Christian army of 700 knights and 3,000 infantry was slain or enslaved in what became known as the Battle of the Field of Blood.

It was against this backdrop that the Knights Templar and the Knights Hospitaller emerged as military forces, pledging their swords for the protection of pilgrims. They blended monastic discipline with a commitment to fight for their God. With their bodies protected by iron and their souls clothed in the breastplate of faith – according to their great Cistercian champion – they flowered into mighty enterprises and became the bedrock for the Christian West's tenuous hold on the Levant.

“THE MUSLIMS HAD RULED THE CITY OF JERUSALEM FOR MORE THAN FOUR-AND-A-HALF CENTURIES. THAT WAS LONG ENOUGH – POPE URBAN DEMANDED ITS RETURN”



The fall of Acre saw the final crusader stronghold in the Levant lost



RECRUITING THE MONKS OF WAR

WHO COULD JOIN THE PRESTIGIOUS ORDER OF THE TEMPLE AND WHAT DID MEMBERSHIP ENTAIL?

The intention of the original Templars was to be 'poor fellows soldiers of Jesus Christ', and Bernard of Clairvaux had insisted that there was to be no distinction of persons within the order. Yet old habits die hard and in the world of chivalry status was everything; certainly by the middle of the 12th Century the order demanded that a man must be of knightly origin if he were to wear the white mantle emblazoned with its distinctive red cross.

Not every member needed to hail from knightly stock, however, so the sergeants wore a black tunic with a red cross on and either a black or brown mantle. The sergeants' armour, too, was less elaborate than the knights', consisting of an iron cap and sleeveless mail coat. They would fight, of course, but on foot rather than horseback.

There may have been further graduation among the sergeant class, incorporating artisans as well as fighting men. The Rule makes note of 'the craftsmen brothers of the stables', presumably referring to the farriers, as well as 'mason brothers', who were needed to build fortifications. Cooks and blacksmiths were also recruited into the Order.

The mainstay of the Order remained the knights, of course. Married men could

THE KNIGHTS TEMPLAR

YEAR FOUNDED: 1118

FOUNDER: Hugues de Paynes

HEADQUARTERS: Initially, Temple Mount, Jerusalem; latterly in Cyprus

This powerful order arose from humble beginnings when in 1118/1119 Hugh de Payns, a knight from Champagne, formed a group of eight companions into a brotherhood sworn to protect the pilgrim route through Palestine. They found support from King Baldwin II of Jerusalem, who granted them accommodation in the complex of the Temple of Solomon, from which the order took its name.

Eager to protect pilgrims and the wealth they carried into the Holy Land, Baldwin seized upon the notion of a standing body of warriors in his kingdom, and perhaps in a bid to boost numbers, a letter was dispatched to the influential Cistercian abbot Bernard of Clairvaux who persuaded the Council of Troyes in 1128/1129 to recognise the fellowship as a religious order. It had a pronounced way of life, which demanded poverty and chastity and obedience to the

Pope. Spiritual rewards were conferred upon its members and numbers flourished.

Now, warriors dubbed 'poor fellows soldiers of Jesus Christ' could enjoy the spiritual rewards of the religious movements while remaining under arms. This was a radical move by the church — which had insisted previously that its professed religious members must remain men of peace — and it was formally confirmed by the papacy in 1139. The mightiest military order of the medieval period was born.

Templar swords spilled blood in the name of Christ from the 1130s onwards, and they fought furiously for the defence of Outremer. Donations flooded in and the Temple Knights flourished, establishing houses across Europe to receive and administer their growing wealth. Eventually, the temporal power and wealth that they originally eschewed would precipitate their downfall.

join but were not permitted to wear the white surcoat. Upon entry, newcomers surrendered secular clothing to the Draper and were armed with standard equipment, along with two shirts, pairs of breeches and sets of hose. They also received a pair of white robes, a tunic and a belt. Each knight could have three horses and a squire, unless the Master sanctioned more.

The knight also carried campaign equipment — bedding, cooking utensils, sheets and the like — and when not at war was expected to live a monastic life, according to the Rule.

When on campaign, the Templars and the Hospitallers were in the minority, fighting alongside Western crusaders or the Turcopoles, mercenaries recruited from the Muslim population. The latter also formed sizeable contingents in many garrisons. According to one source, just four brethren knights and 28 sergeants patrolled the Hospitaller fortress of Marqab, with the rest of the defending force being comprised of mercenaries.

As well as knights, drapers, cooks and farriers were also accepted into the Order



RULE OF THE KNIGHTS TEMPLAR

Abbot Bernard of Clairvaux granted the Knights Templar its Rule, or way of life, based on that of St. Augustine, which was deemed more suitable for movement in the secular world, unlike the Benedictine Rule employed by Bernard's Cistercian monks. His ideals were the foundation for the rules of all the main military orders and were set out in the pamphlet, 'In Praise of the New Knighthood'. His Rule originally comprised 72 clauses, though by 1260 it ran to 686. Some important demands on the knights included:

- KEEPING A VOW OF CHASTITY.
- EATING IN SILENCE.
- TAKING MEAT NO MORE THAN THREE TIMES A WEEK.
- FASTING EVERY FRIDAY, AND BETWEEN ALL SAINTS AND EASTER EAT ONLY SPARINGLY.
- FORGOING FALCONRY AND HUNTING AS SPORT.
- CROP THEIR HAIR BUT LEAVE FACES UNSHAVEN.
- SLEEPING IN SHIRT AND BREECHES.
- NOT BOASTING OF PAST DEEDS.
- NOT GOING INTO TOWNS FOR PLEASURE, ONLY FOR PRAYER.
- OBEY THE GRAND MASTER WITHOUT QUESTION.

HIERARCHY OF THE KNIGHTS TEMPLAR

THE GRAND MASTER

THE SUPREME HEAD WITH VAST POWERS

THE SENESCHAL

THE GRAND MASTER'S DEPUTY, WHO CARRIED THE ORDER'S BANNER

THE MARSHALL

HEAD OF THE MILITARY ESTABLISHMENT

THE COMMANDER OF THE LAND OF JERUSALEM

THE TREASURER

THE DRAPER

ISSUER OF CLOTHING AND DISTRIBUTOR OF GIFTS

REGIONAL COMMANDERS

CITY OF JERUSALEM; TRIPOLI; ANTIOCH; OF THE KNIGHTS; TURCOPOLIER; THE UNDER-MARSHAL; THE STANDARD-BEARER; THE INFIRMARER

THE RANK-AND-FILE KNIGHTS TEMPLAR

THE SERGEANTS THE ARTISAN TEMPLARS

The numbers of Temple Knights are near impossible to gauge, though one esteemed historian suggests that during the 1170-1180s, Outremer boasted around 600 knights and 2,000 sergeants. The same historian believes that at the beginning of the Order's downfall in the early 14th Century, there were 970 houses and 7,000 Templars scattered across the Christian world.

HELMET

Though the great helm came into being during the later crusading era, the conical helm was the mainstay of the 12th-Century knight, its shape ideal for deflecting sword blows.

HAUBERK

Though plates, or 'ailettes' were worn during the 14th Century, the early crusader armour remained chainmail, worn with a thickly padded coat beneath, called a 'gambeson' or 'jack'.

SURCOAT

The flowing surcoat became popular during the 12th Century, some historians suggesting it owes its origins to the crusaders who adopted it from their enemies, the white cloth reflecting heat. It is thought that the Templar's distinctive red cross, symbolising his willingness to suffer martyrdom, emerged during the mid-12th Century.

EQUIPMENT OF A TEMPLAR KNIGHT

KITE-SHAPED SHIELD

With 11th- and 12th-Century knights fighting on horseback, the kite-shaped shield protected the body and legs from sword blows, spear thrusts and missile attack. A smaller shield replaced this as plate armour developed.

SWORD

The archetypal symbol of the knight was the primary weapon, though the lance was vital in a cavalry charge and Templars might also carry a mace, as well as their dagger.



PROTECTING THE PILGRIM ROAD

It was while touring his homeland in 1095 that Pope Urban II launched the First Crusade, calling upon the chivalry of Europe to assist their brethren in the East and take revenge against Islam for the atrocities that the 'infidel' had supposedly meted out on Christians in the Holy Land.

In truth, peace reigned in the East, though tensions often simmered. Yet Urban's bid to boost Papal power would change all that. His plea, pronounced at Clermont in France, entwined the Christian faith with military violence and initiated a period of hostilities that sent countless thousands to their deaths. Holy war was engendered and it was not only Europe's warrior-caste, but humble men, women and children, who flocked to his cause. It is thought that in the 12 months following his sermon, between 60,000 and 100,000 people may have answered his call to arms.

The crusade was a truly radical move, sanctifying bloodshed – which was anathema to the teachings of Christ. But the suggestions woven into the fabric of Urban's text offered the

first crusaders enticements that were hard to resist. Many young knights sought adventure, and the chance to make a name or win lands of their own; material greed undoubtedly played a part in the decisions of many.

Arguably the strongest incentive, however, was the prospect of salvation. To the 11th-Century mind, fraught with worry over the life-hereafter. After all, what better way was there to enter the Kingdom of Heaven than by reclaiming Jerusalem, occupied by the Muslims since 638? 'God has initiated in our time holy wars,' wrote one contemporary, so that Christians 'might find a new way of gaining salvation. And so they are not forced to abandon secular affairs completely.'

Once the crusaders had taken Jerusalem amid terrible bloodletting in 1099, Outremer emerged, a land littered with sacred sites to which those unable to fight in the Holy Land's liberation could travel in a bid to curry God's favour. It was to protect these travellers – and then to fight for the kingdom itself – that the military orders were born.

CRUSADER STRONGHOLDS



CHASTEL-BLANC COUNTY OF TRIPOLI

Among the many castles held by the Templars, their presence in the County of Tripoli was focussed on Tortosa (Tartous) and Chastel-Blanc, the latter squatting 380 metres up in the Nusairi Mountains. The towering keep was built high on a hill and rimmed by oval perimeter walls 165x100 metres at their widest points. Men atop the keep could see the might Hospitaller citadel of Krak des Chevaliers to the southeast as well as their own fortress at Tortosa in the northwest. The Templars rebuilt the keep at least twice in the aftermath of earthquakes in 1170 and 1202.

KRAK DES CHEVALIERS COUNTY OF TRIPOLI

The military orders garrisoned many fortresses throughout the Holy Land, though none could compare to the mighty Krak des Chevaliers. Arguably the most awesome military structure to survive from the medieval era, Krak was granted to the Knights Hospitaller in 1144, which held it until it finally fell in 1271. During this time it withstood 12 sieges and repelled attack by the great Saladin. It could comfortably house 2,000 men with supplies for many months, making it perfect for withstanding a siege.

Indeed, it didn't fall through assault, but through trickery and declining morale. When the Egyptian besieger Baibars finally pierced the outer walls in 1271, he was confronted by the enormity of what still remained. Hence, during the sixth week of his investment, the wily Sultan gambled on a carrier pigeon that he sent over the walls with a message purportedly from the head of the Order of St. John ordering the defenders to seek honourable surrender. Krak was one of the few strongholds still held by Westerners in the Levant and the beleaguered castellan agreed. Baibars upheld the pretence and let the garrison leave with honour.



AL-KERAK KINGDOM OF JERUSALEM

Also known as Kerak or Karak, this castle was never fully held by a military order, though the Hospitallers were granted the lower bailey in 1152. It's worthy of inclusion here, however, courtesy of a story from Saladin's siege in 1183. During his bombardment, a crusader wedding was in full swing and, unperturbed by the destruction raining down, the bride's mother sent out some choice dishes to Saladin, who responded in an equally chivalric manner by asking whereabouts the wedding was taking place in order that he might direct his artillery elsewhere.



Krak Des Chevaliers, County of Tripoli



COUNTY OF EDESSA

The first Latin settlement to come into existence in the Levant, Edessa straddled the Euphrates and was sandwiched between the Muslims and the Greeks. Its population was mostly Christian and its land comparatively fertile.

PRINCIPALITY OF ANTIOCH

Lying between Edessa and the coast was the Principality of Antioch, with its frontier edging towards Aleppo. Often in conflict with the Byzantine Empire as well as the Muslim world, it contained the fortresses of Jabala, Latakia and the romantically named Chastel Rouge.

COUNTY OF TRIPOLI

Founded by the powerful crusader Raymond of St. Gilles, the County of Tripoli boasted the important port from which it took its name, as well the fortresses of Tortosa, Chastel-Blanc and the mighty Krak des Chevaliers.

KINGDOM OF JERUSALEM

The leaders of the First Crusade elected Godfrey of Bouillon to rule the kingdom that ran from Jerusalem through to Jaffa on the coast. In the years following, the kingdom ran as far north as Beirut, taking in the key ports of Tyre, Acre and Ascalon, as well as Bethlehem, Nazareth, Jericho and the fortress of Belvoir.

SELJUK INVASION OF THE COUNTY OF EDESSA (1144)

ROUTE OF THE SECOND CRUSADE (1147-1149)



MAJOR CONFLICTS



CHRISTIAN CASTLE

- 1 BYZANTINE EMPIRE
CHRISTIAN STATE
- 2 SULTANATE OF RHUM
ISLAMIC STATE
- 3 ARMENIAN CILICIA
CHRISTIAN STATE
- 4 COUNTY OF EDESSA
CRUSADER STATE
- 5 PRINCIPALITY OF ANTIOCH
CRUSADER STATE

- 6 COUNTY OF TRIPOLI
CRUSADER STATE
- 7 SELJUK TURKS
ISLAMIC STATE
- 8 KINGDOM OF JERUSALEM
CRUSADER STATE
- 9 FATIMIDS
ISLAMIC STATE

THE KNIGHTS OF THE HOSPITAL OF ST. JOHN (KNIGHTS HOSPITALLER)

YEAR FOUNDED: 1099

FOUNDER: Fra' Gerard

HEADQUARTERS: Initially, Jerusalem; most famously, Malta

The second leading military order of the medieval period was the Knights Hospitaller, whose members, like the Templars, swore monastic vows and fought for the defence of the Holy Land. There were differences between the orders, however, with the most notable being the Hospitallers' medical duties – a legacy that continues today in the form of St. John's Ambulance.

The Hospital of St. John predated the First Crusade. The Knights of St. John are identified in their capacity as medics and healers

Crusade, though it came under Frankish influence soon after. Its origins were at first wholly peaceful, caring for poor and sick pilgrims to the Holy Land by offering them the chance of recuperation before they continued their journeys. Based inside a building adjacent to the Holy Sepulchre, the hospital is said to have had provision for up to 2,000 sick of both sexes.

Their impetus changed, however, during the course of the 12th Century as military functions came to outstrip the pastoral. The precise timing and reasons are unclear, though military activity was confirmed in 1136 when King Fulk

of Jerusalem bestowed a key fortress upon the knights as he sought to surround Ascalon, the last Muslim stronghold on the Palestinian coast.

By 1144, the order took a substantial estate in Tripoli, which included the mighty bastion of Krak des Chevaliers, arguably the most impressive fortress of the crusader era. By 1187 and the disastrous Battle of Hattin, the Order controlled more than 20 strongholds across the Levant. The Hospitallers maintained their medical duties alongside their increasing martial function, and fought on in the Mediterranean long after Outremer, and the Templars, had crumbled to dust.



FOR GOD & GLORY: THE OTHER MILITARY ORDERS

THE TEMPLARS AND HOSPITALLERS WERE THE MOST FAMOUS SOLDIER-MONKS BUT THEY WERE NOT ALONE. A HOST OF MILITARY ORDERS EMERGED IN THEIR WAKE...

TEUTONIC KNIGHTS

Certainly the third most-celebrated order, the Teutonic Knights was founded in 1198 along the same lines as its brethren, a legacy of the abortive German crusade of 1197. Initially installed at St. Nicholas Gate at Acre, they flourished in the Baltic rather than Palestine, though as the military orders took an ever-increasing role in the defence of Outremer, the Teutonic Knights played their part.

KNIGHTS OF ST. LAZARUS

It is thought that the Hospitallers of St. Lazarus, a group of leper knights first mentioned in 1142, was the third order to emerge in the Levant. The rule of the Temple insisted that any member who contracted leprosy should leave and join these brethren. In times of crisis, the 'unclean' knights may have born arms.

KNIGHTS OF OUR LADY OF MONTJOIE

Montjoie was a castle outside Jerusalem, taking its name from pilgrims' joyous proclamations uttered upon seeing the Holy City in the distance. The Spanish Count Rodrigo founded this order, which followed the Cistercian rule and pledged to ransom captives as well as fight the 'infidels' of the Holy Land, but it struggled to attract recruits.

KNIGHTS OF ST. THOMAS OF ACRE

During the Third Crusade, King Richard I of England joined the 1191 siege of Acre and during the assault a certain William, chaplain to the Dean of St. Pauls, began caring for the English wounded before going on to found a hospital once the city fell. The members of this order only took up arms in 1228 under orders from the Bishop of Winchester.

THE KNIGHTS OF CALATRAVA

The initial success of the military orders in the East inspired similar zeal during the Reconquista in Spain, where the Knights of Calatrava were formed in Castile in 1158 to help drive the Moors back across the Mediterranean. Other orders followed, like the Knights of Santiago, founded in León in 1170.



MILITARY ORDERS AT WAR: THE BATTLE OF ARSUF, 1191

Such was the military orders' prowess on the field that the great conqueror Saladin, ordinarily a merciful man, ordered the execution of many Templars and Hospitallers in the wake of his crushing victory at Hattin so that they could not fight again. Indeed, Saladin's victory at Hattin in 1187, and his subsequent recapture of Jerusalem, inspired the Third Crusade, which brought Richard I of England to Palestine, a great warrior who, like his enemy, recognised the efficacy of the military orders.

During Richard's march south from victory at Acre in July 1191, for example, the Christian army was harassed persistently but the military orders played a vital role not only in repelling

Turkish onslaughts – the Hospitallers in the van, the Templars at the rear – but also in collecting fodder and recovering the wounded.

They really proved their worth at Arsuf in September of that year, when Saladin, eager to avenge the slaughter at Acre, finally pounced. Richard marched for the safety of the fortress at Arsuf, drawing up his forces in 12 squadrons, which were then divided into five separate battle-lines for their final push. The lionhearted general recognised that group control and coherence would be instrumental.

With this in mind he ordered the Templars to take the van, with the Hospitallers holding the rear, figuring that their discipline would keep

his more reckless troops in check. Richard packed his men into such a solid mass, that one chronicler claimed an apple, if tossed in their midst, would not hit the ground.

Saladin attacked, bludgeoning the Christian rear, and the Hospitallers were pushed to breaking point, prompting a lapse in discipline that, ironically, won the day. The Knights of St. John charged their assailants, though they'd been given no orders. The infantry lines parted and the Templars, and then even Richard himself, thundered into Saladin's troops, like a 'rolling wave', according to one author, and their impact was devastating. The Turks broke and fled. The military orders had won yet another great victory.

"THE TURKS BROKE AND FLED. THE MILITARY ORDERS HAD WON YET ANOTHER GREAT VICTORY"

Richard I led the crusader forces to victory at the Battle of Arsuf

THE DEMISE OF THE TEMPLARS

THE 12TH AND 13TH CENTURIES SAW THE TEMPLARS BECOME PIVOTAL IN THE CHRISTIAN WORLD AS BOTH A BULWARK AGAINST THE MUSLIM TIDE IN THE EAST AND AS A FINANCIAL POWERHOUSE IN THE WEST. YET IN 1312 THE ORDER WAS DISSOLVED AND TWO YEARS LATER ITS GRAND MASTER WAS ROASTED ALIVE...

'A detestable crime, an execrable evil, an abominable work.' Such were the contents of King Philip IV's secret orders to his seneschals in September 1307 as he prepared the surprise arrest of the Knights Templar in France, their European stronghold. Among the accusations levelled at the knights were the sins of denying Christ, of engaging in homosexual practice and of worshipping idols. Pope Clement V protested but when Master Jacques de Molay and others confessed, he ordered the Templars' arrest across Europe. Trials followed and in March, 1312,

the papacy announced the order's dissolution. Molay, who retracted his original confession, was burned at the stake in 1314.

During the course of the scandal, many of the Templars who'd confessed argued that they had done so under torture – a lamentable method of prosecuting the innocent throughout history. In addition, when their treasures were seized there is no mention of the supposed idols that they were said to have worshipped, and though members had apostatised and left the Temple throughout its history, never before had such allegations come to light. It appears the reasons for the Templars fall came from without, not within. But why?

By this period the military orders had failed in their

pledge to protect Outremer, which had gradually collapsed, and with the fall of Acre in 1291 critics had a target for their protestations. Many have also argued that Philip worried about a military state within his own country, but the Temple in France was hardly militaristic in character. Perhaps Philip, always struggling for money, coveted the knights' vast riches, and certainly the crown enjoyed short-term financial gain, but the Pope – though often regarded as a puppet of the French king at the time — granted their treasures to the Hospitallers, and Philip did not press for further financial gain.

There had been discussions about merging the military orders, but the Templars protested and some believe that this angered Philip who, eager to forge a new crusade, hoped to lead the combined orders to war. Philip never did visit the Holy Land, even though the opportunity remained throughout his life. The fact remains that the king might have believed the accusations levelled against the Templars. Certainly, following his wife's death in 1305 he became increasingly concerned with religious matters and may have wanted to purge a perceived evil from his kingdom. No conclusion is definitive and though the military orders continued to operate, the mightiest order of all had been destroyed.



A miniature of Master Jacques de Molay being burned at the stake in Paris, 1314

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Operator's Handbook

SU-76M

TANK DESTROYER

SU-76Ms replaced the original SU-76 with updated engines, transmissions and shock absorbers

Meet the tank killer that helped halt the German advance into Soviet lands and turn the tide of Russia's Great Patriotic War

If the First World War was the birth of tanks, the Second World War was the birth of tank killers. Used in high numbers by the Wehrmacht and Red Army (but not so much by the Allied powers). A field gun attached to a tank chassis would create a mobile heavy gun and an infantry support weapon in the field of battle. The SU-76M was the successor to the original SU-76 and was mass-produced by the USSR in an attempt to defeat the Panzers that were advancing ever eastwards. Production began in December 1942 and they became a triumph of Soviet handiwork. Hastily produced, they paled in comparison with their German equivalents but their sheer numbers (over

"THE SU-76M WAS MASS-PRODUCED BY THE USSR IN AN ATTEMPT TO DEFEAT THE PANZERS THAT WERE ADVANCING EVER EASTWARDS"

12,500 were built) meant they could easily outflank any German advance. This was a factor in the reverse in fortunes of the Germans on the Eastern Front at the Battle of Kursk.

After the end of the war, the SU-76M model was used in the Korean War on the side of the Communist forces of North Korea until it was phased out by more-modern vehicles and methods of warfare. Even when they were

replaced, many were stripped of their guns and remodelled into ammunition carriers and battlefield recovery vehicles. There were many different SU-76s in the Red Army. The SU-7B had a closed crew compartment while the SU-76P and SU-76I were based on the Soviet T-26 and German Panzer III. The design also set out the template for the ZSU-37, which became the Soviet self-propelled AA gun of choice.

SU-76Ms used their camouflage and the terrain to stealthily advance upon unwitting enemy tank divisions



Soviet soldiers hitch a ride on an SU-76M as they liberate a German town

SU-76M

COMMISSIONED December 1942

ORIGIN USSR

LENGTH 4.88m (16ft)

WIDTH 2.74m (9ft)

ENGINE 2x 85hp GAZ-203

CREW 4

ARMOUR 35mm (front), 16mm (sides)

SPEED 44km/h (27.3mph)

PRIMARY WEAPON 1x 76.2mm ZiS-3 L/41 field gun

SECONDARY WEAPONS ● Degtyaryov machine gun
● Crew's personal arms

76MM GUN

By 1942 the Soviets were taking the full brunt of the Nazi onslaught on the Eastern Front. The mass-produced T-34 tanks were effective but something more was needed to tilt the war in their favour. The decision was made to begin the production of so-called 'tank destroyers' that would halt the Panzer advance.

The 76.2mm gun fared well against the Panzer III and IV but as stronger German tanks rolled onto the front, the SU-76M was reduced to an infantry support vehicle, as it could not penetrate the thick armour of the Tiger and Panther tanks. Some models of the SU-76 could also have anti-aircraft guns mounted instead and there was also a short-lived prototype with a 57mm armament as the Red Army tinkered with the tank-destroyer formula.

The 76.2mm gun was effective against the earlier Panzers but found it very difficult to puncture a Tiger's thick armour

The ZIS-3 76.2mm was taken from a Russian field gun and attached to a tank chassis

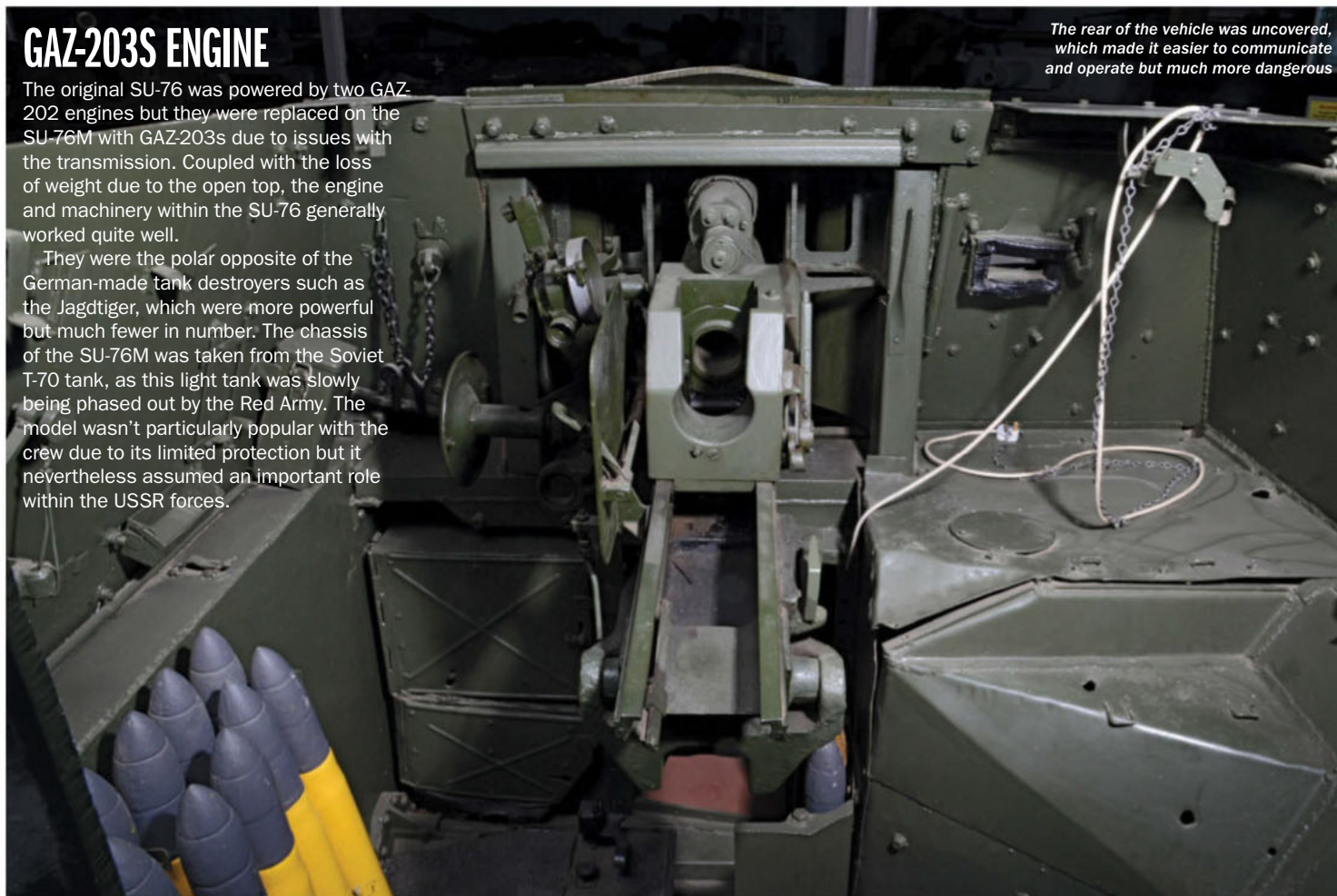
"THE MOST EFFECTIVE TACTIC WOULD BE TO FLANK A PANZER AND CATCH IT OFF GUARD WITH A STRIKE ON THE WEAKER ARMOUR"

GAZ-203S ENGINE

The original SU-76 was powered by two GAZ-202 engines but they were replaced on the SU-76M with GAZ-203s due to issues with the transmission. Coupled with the loss of weight due to the open top, the engine and machinery within the SU-76 generally worked quite well.

They were the polar opposite of the German-made tank destroyers such as the Jagdtiger, which were more powerful but much fewer in number. The chassis of the SU-76M was taken from the Soviet T-70 tank, as this light tank was slowly being phased out by the Red Army. The model wasn't particularly popular with the crew due to its limited protection but it nevertheless assumed an important role within the USSR forces.

The rear of the vehicle was uncovered, which made it easier to communicate and operate but much more dangerous



35MM ARMOUR

The tank killer's game was based on using camouflage and cover rather than going in all guns blazing. The most effective tactic would be to flank a Panzer and catch it off guard with a strike on the weaker armour at the side or rear. If the SU-76M was caught out in the open, it had 35mm armour on its front and 16mm on its sides. This armour was strengthened on the later SU-76Ms that served in the final months of the Second World War and the Korean War. Unlike a tank, the SU-76 was open at the back to allow the gunner and loader to communicate with other vehicles with hand signals. The downside to this was the lack of protection to the crew. This was rectified on several later designs but they never made it past the prototype stage.



The armour of the SU-76M wasn't famed for its thickness and could be pierced by machine gun fire

THE OTHER TANK KILLERS

THE SU-76M WASN'T THE ONLY VEHICLE ON THE BATTLEFIELD THAT WAS DESIGNED TO ELIMINATE TANKS

STURMGESCHÜTZ III GERMAN

Based on the body of a Panzer III, the StuG III was the German equivalent of the SU-76M. It was employed in a defensive role and its 75mm gun could penetrate 85mm thick tank armour from over 1,000m (3,280ft) away.



M10 AMERICAN

The M10s were based on Sherman M4A2 tanks and were employed in Western Europe in specialised tank destroyer battalions. The M10s had thick 37mm armour and were implemented into the Danish, Dutch and Belgian armies during the struggle against the Wehrmacht.



ARCHER BRITISH

An unusual design, the Archer was born out of the British army's desire to create a mobile transport for its 17 pounder anti-tank gun. Despite being unable to fire when moving, the Archers proved successful and were in use until the Fifties.



JAGDTIGER GERMAN

The heaviest tank killer of then all, the Jagdtiger was produced far too late to have any affect on the war. Only 80 of these 70-ton machines were made and they were constantly dogged with engine and fuel issues.



THE SU-76M IN THE FIELD

TANK MUSEUM WARDEN TOM MOORCROFT ON THE FAMOUS RUSSIAN TANK KILLER

What role did the vehicle have on the battlefield?

It was mainly used for heavy suppressing fire and pursuing tanks. It is basically a mobile artillery gun. The difference between it and a tank is that a tank has a turret.

How did it stand up against the German Tiger Tanks?

The SU-76, as the name says, has the smaller 76mm gun. It was later upgraded to an 85mm gun to combat the Tiger and Tiger II whose armour was far too thick to penetrate. Ideally this vehicle would be used against smaller tanks such as the Panzer III and Panzer IV.

What were the conditions like inside?

Pretty much the same as any tank but it's open at the back and is essentially a convertible! The loader and gunner would be on the rear while the driver sat below the gun at the front. It's based on the T-34 but it is actually quite dissimilar with its open roof.

What tank was it most effective against?

Only the Germans and the Russians really used tank destroyers, as the UK and the USA preferred just using tanks. When used with tanks and machine guns, it could hold off an enemy advance. Even

when enemy tanks weren't spotted, the SU-76 could be very effective as a camouflaged artillery gun against infantry before the main armoured column arrived.

Did it have any flaws?

The problem with a tank destroyer is the limited movement of the gun, which can only aim up and down and not 360 degrees. If you want to fire left and right, you have to move the whole vehicle. When enemy convoys split up, an SU-76 could be easily outflanked. However, this vehicle is a very good example of Russian mechanical reliability. German tank killers such as the Jagdtiger were so complicated to build, by the time you've made one of them, you've made many SU-76s. They are very crude in their design but you just make as many as you can.

After the Korean War ended, did tank killers become obsolete?

Well, that argument has been going on throughout the history of the tank – is the tank really relevant? Personally, if the enemy has tanks, you're always going to need tanks yourself in order to lead a counterattack. In the territory of the Korean War, you can't really use tanks in urban warfare but they are still very effective in open fields as long as you don't get bogged down!



Below: The rear of the SU-76M was open to the elements, giving the gunner and loader little to no protection



Below: A wrecked North Korean SU-76M captured and examined by the US Army in the Korean War



The SU-76M wasn't overly popular with its crews and was called 'Suka' meaning 'The Bitch'

TANK DESTROYERS IN MODERN WARFARE

ARE TANK KILLERS RELEVANT IN TODAY'S CONFLICTS?

After the Second World War, Nazi Germany went through a mass disarmament process and the USSR sheltered behind its impenetrable Iron Curtain. So, what happened to the tank destroyer? The SU-76M model was sold in large swathes to North Korea but as tanks got stronger and wars became more covert in nature, the role of the tank destroyer began to diminish.

Some still remain today, although they look different to the World War Two vintage. Rather than installing field guns, missile launchers are now a much more effective way of laying waste to armoured tanks on the battlefield. Although lightly armoured, the missile's guided systems allow the tank destroyer to strike from a reasonable distance.

“AS TANKS GOT STRONGER AND WARS BECAME MORE COVERT IN NATURE, THE ROLE OF THE TANK DESTROYER BEGAN TO DIMINISH”



Taking its lead from the US M-113, the Norwegian Model-142 uses a TOW2 guided missile system to blast tanks out of the battlefield



This British tank destroyer was introduced in 1975 and saw service in the Gulf War. Its Swingfire missiles have a range of 4,000m (13,120ft)



Breaking away from the traditional look, this was the first guided missile anti-tank vehicle to be produced when it made its debut in 1962

THE TANK MUSEUM

Situated in the Bovington Army Camp in Dorset, The Tank Museum was opened in 1947. It contains over 300 vehicles from 26 different countries, from the First World War Mark I tank to the currently serving Challenger 2. The SU-76M is situated in the Discovery Centre and was captured during the Korean War before being given to the museum. Although this tank does not run, the museum holds numerous events throughout the year when visitors can see these historic machines brought to life. Visit www.tankmuseum.org for the museum's opening hours and admission information.



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Originally published in 1961, *I Was A Slave In Russia* has a well-earned reputation. As a first-person account of what it was like inside the Soviet Gulag system, it remains an essential document on an incarcerated American's struggle during the Cold War.

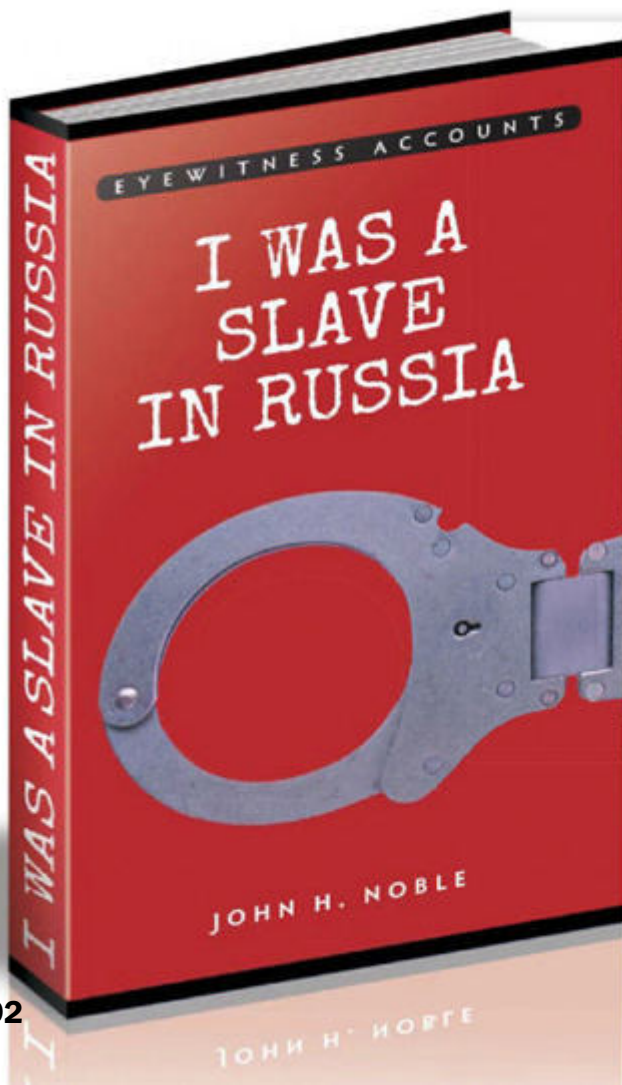
Its writer, John H Noble, was held prisoner for ten years, beginning with his arrest by Soviet occupation forces in Dresden in 1945. He was held on an espionage charge and transferred across Russia, ending up at Vorkuta, 50 miles above the Arctic Circle, where the temperature is too much for even bacteria to live.

The real strength of the story, however, is Noble himself. Not only is the book brilliantly written, it comes from a position of experience and wisdom. Noble is a likable, engaging personality throughout, which only makes the story that much more terrifying – how a man, completely innocent, could find himself being forced to work in the mines, under the most appalling conditions, is the stuff of nightmares.

Perhaps most interesting is the book's account of Europe towards the end and after the Second World War, revealing the state of international relations from a man in a

uniquely-placed angle. The story starts in Dresden, where Noble was living at the tail-end of the war, and where he and his family are anticipating who will arrive first – troops from the West or troops from the East. It was a waiting game with two very different outcomes for the Dresden people.

From there, it's a fascinating story of being trapped behind the Iron Curtain – just one anonymous individual lost in the global threat of the Cold War. Though far from a new book, *I Was A Slave In Russia* has lost none of its impact – it's a brutal and grim story, but also utterly gripping.



Vorkuta Gulag was among the most notorious Soviet forced labour camps

“An essential document on an incarcerated American’s struggle during the Cold War”

THE FIRST WORLD WAR IN PHOTOGRAPHS: 1917 – MUD AND TANKS

Author John Christopher & Campbell McCutcheon **£15.99** **Publisher** Amberley Publishing **Released** Out now
ANOTHER EDITION IN THE IMPRESSIVE COLLECTION OF VISUAL GUIDES TO THE GREAT WAR

The *First World War in Photographs* series of books continues, this time focusing on the third year of the conflict. While it feels like another relatively brief tome, Christopher and McCutcheon's work packs in plenty of detail, spinning through the events at a quick pace without compromising the book's real purpose – a broad but thorough look at the most crucial aspects of the Great War.

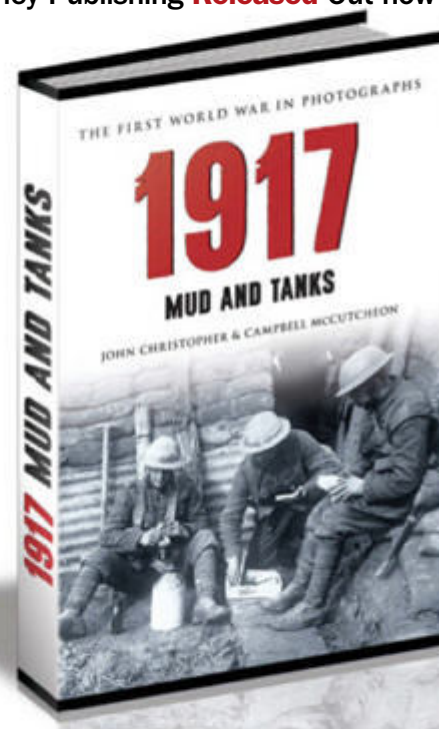
Certainly there's plenty to get through, as 1917 was a fascinating year. Though it was a war largely started over naval politics and a quest for superiority on the seas, the navies would be relatively inactive, though intensive submarine activity sunk three American ships, bringing the US into the war. Elsewhere, the Russian Revolution had recently broken out, changing the face of the conflict in Europe, while Austro-Hungary and Germany were gradually realising they were on the brink of final defeat.

As with the other thorough books in this series, the real draw is its impressive collection

of photographs and other images. This alone gives the reader a better sense of what life was really like, for both those on the frontline and waiting back at home.

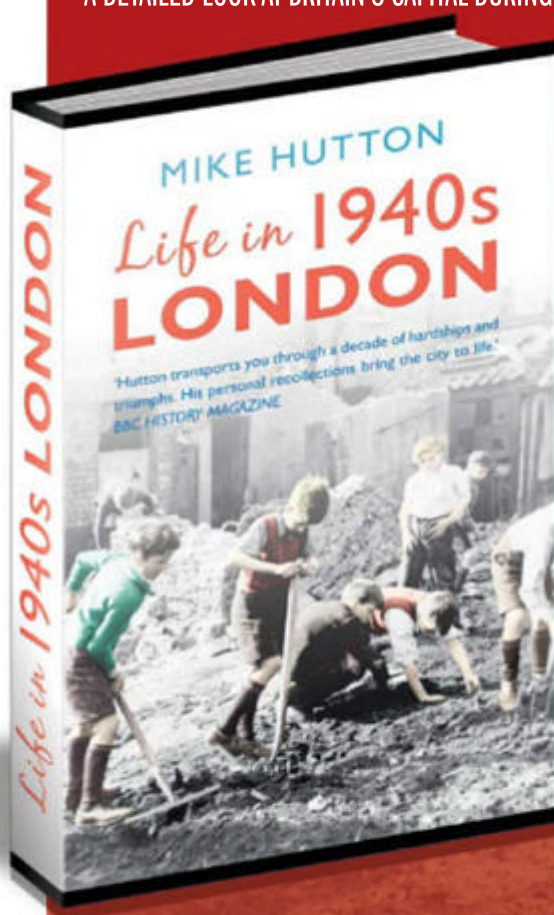
Just some of the amazing pictures in this edition include a classroom of boys at a Bradford school making boxes for soldiers, German prisoners helping carry wounded Allies to a dressing station in the "race against infection", and, somewhat surprisingly, a charming shot of thousands of soldiers' shirts being hung out to dry between battles. There are also pages of wartime posters and public-information materials (from both sides of the conflict), plus maps to give a clearer insight into specific campaigns and how the action unfolded over the year.

In truth, the book is incomplete without the others in the series, but they are all certainly worth collecting in their entirety. Equally as useful for newcomers to the topic, or those already well versed with the events, there's plenty to learn from here.



LIFE IN 1940s LONDON

Author Mike Hutton **£9.99** **Publisher** Amberley Publishing **Released** Out now
A DETAILED LOOK AT BRITAIN'S CAPITAL DURING THE MOST WAR-TORN DECADE OF THE 20TH CENTURY



For many Brits, wartime London remains one of the most captivating areas of WWII interest. In hindsight, it's been romanticised as a symbol of British solidarity, depicted by the sight of Londoners banding together to ward off the Nazi menace, no matter how many of their homes were destroyed ("songs that won the war" and all that). In reality, it must have been a miserable, taxing time – more challenging beyond what most of us can imagine today.

Mike Hutton's new book aims to give an honest, straightforward portrayal of London during the war and in the years afterwards. It's divided into chapters that each outline an integral aspect of what the author describes as, at the time, "the greatest city in the world, both in size and influence". Topics covered include the obvious, such as the Blitz, but also other culturally fascinating areas: the invasion of US GIs, popular culture and sport in the city, crime, London's class divide, and how the capital coped with significant social changes and financial restraints.



Covent Garden in 1940

Though Hutton's writing does fall into using that irritating narrative trait of trying to relay facts in the style of fiction prose, it remains a hugely readable book, due in the most part to the accounts of people who were there.

Each chapter is short and concise enough that it doesn't linger on any one point for too long, but detailed enough to give a solid understanding of the impact the Second World War had in all corners of London life.

Surprisingly, the book is most interesting in its depiction of London's darker aspects, such as crime during the war, or some of the post-war events, where the stories strip away some of the romantic notions of Londoners at the time. Overall, it's a book that does justice to a time and place key in shaping the identity of modern Britain.

"It's a book that does justice to a time and place key in shaping the identity of modern Britain"

A WARRIOR DYNASTY: THE RISE AND FALL OF SWEDEN AS A MILITARY SUPERPOWER, 1611-1721

HOW ONE SMALL KINGDOM FOUGHT ITS WAY TO GREATNESS AND CHANGED THE COURSE OF ONE OF EUROPE'S LARGEST CONFLICTS

Author Henrik O Lunde **£19.99** **Publisher** Casemate

Okay, hands up who knew Sweden was once a military superpower? If you didn't, it's probably because very little exists in English about Sweden's role in The Thirty Years War and its aftermath. This book, as the author states from the get-go, is an attempt to redress that.

A quick recap: Early 17th-Century central Europe is a jigsaw puzzle of principalities, duchies, counties, and fiefdoms. It's overseen by the Holy Roman Empire, essentially a Catholic conglomerate that's been in place for about 800 years. However, by 1618, it's had its day and a religious power-struggle between Catholics and Protestants has sparked The Thirty Years War. Cue a massive tear-up between Catholic Spain and Austria on one side, and France, Holland, England and various

regions of what is now modern-day Germany on the other.

For the first 12 years of the conflict the Empire held a solid upper hand, but then Sweden entered into the fray. In 1630, its king Gustav Adolph marches his army through Germany and within two years has driven the Catholic forces back into Austria. What follows is almost 100 years of significant Swedish influence throughout the continent backed up serious military clout.

Clearly, the Swedes were punching well above their weight, but how? As Lunde's book reveals, that was largely down to Gustav who, when it came to military logistics, was a genius. He understood that to ensure victory his armies needed to be technically superior to their

enemies and consistently well supplied. To do that, though, required capital and Gustav hit upon a business plan that would impress even Alan Sugar – he'd make war profitable through taxing the territories he occupied, and by hiring his troops out to his allies.

Unfortunately, when it came to personal safety, however, Gustav wasn't quite as smart. His recklessness in combat – he usually led from the front often without armour – eventually got him killed. But the story doesn't end there.

The second star of this book turns out to be King Karl XII who, in 1700, led Sweden into the Great Northern War. Before Hitler, before even Napoleon, it was King Karl who looked at a map and thought invading Russia would be a good idea. The resulting conflict lasted 21 years and ended with Sweden being replaced as a military superpower by Peter the Great's Russian empire.

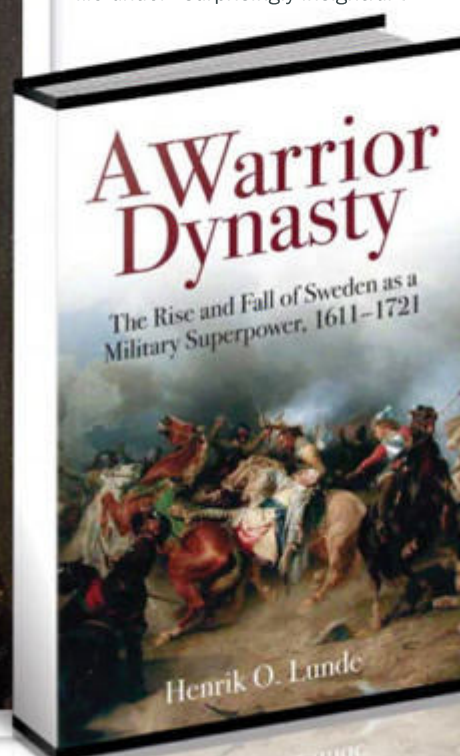
Karl was beaten, it seems, not only by his greed, but by his failure to learn from history. Unlike Gustav he underestimated the importance of logistical support and his forces frequently found themselves overstretched in the field. Just like Gustav, though, he was reckless in battle and in 1718 was also killed in combat.

The idea that Sweden has played a key role in shaping European history at first seems unlikely. But by telling that history from an entirely Swedish perspective, Lunde demonstrates how his country both broke the Holy Roman Empire, and then woke Russia from sleeping-giant status. An intriguing read: file under "surprisingly insightful".



“Lunde demonstrates how Sweden broke the Holy Roman Empire”

King Gustav Adolph is still revered in Sweden as a national hero



WAR ON THE SILVER SCREEN: SHAPING AMERICA'S PERCEPTION OF HISTORY

Author Glen Jeansonne and David Luhrssen **£12.99**

Publisher Potomac Books

One of history's more curious coincidences was the emergence of America as a major international player and the birth of its all-conquering film industry. That fact seems to have inspired this entertaining book, which sets out to explore the relationship between the American war machine over the last 100 years and its portrayal in Hollywood.

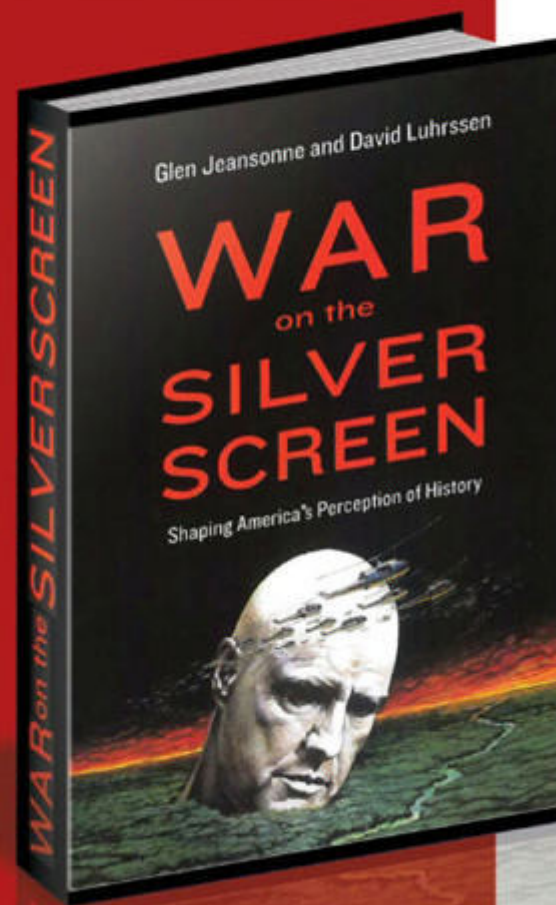
Of course what happens on a battlefield and what appears on a cinema screen are worlds apart. And yet, as this book sets out to prove, it's the celluloid account that often becomes the perceived version of events – at least in the public consciousness.

Starting with movies of the First World War, the book leads us on a charge through history until we arrive right back here, in the middle of the so-called War on Terror. Along the

way we've been introduced or reintroduced to scores of movies that seem to have been chosen entirely arbitrarily to prove the authors' point.

Though well written and well researched, the book fails to provide much insight beyond the fact that films can have a powerful impact on the way history is remembered, which isn't exactly a ground-breaking revelation. Where the book has true value, however, is in the range and variety of films it references. When it comes to war movies, the authors clearly know their stuff. And while this isn't the most intellectually stimulating book, reading it is a bit like having one of those great evenings down the pub when one of your mates kicks off a conversation with the question: "So, what's your favourite war film, then?"

“When it comes to war movies, the authors clearly know their stuff”



ZERO NIGHT: THE UNTOLD STORY OF WORLD WAR TWO'S MOST DARING GREAT ESCAPE

Author Mark Felton **£12.99** **Publisher** Icon Books

Fans of the film *The Great Escape* (and frankly who isn't?) will love this book. It tells the thrilling and true story of a similarly ambitious, earlier breakout from a German prisoner of war camp by a group of Allied inmates.

'Operation Olympia', as the escape was code-named, took place on the night of 30 August 1942, when 41 British and Commonwealth officers tried to bust out of Oflag VI-B in Warburg.

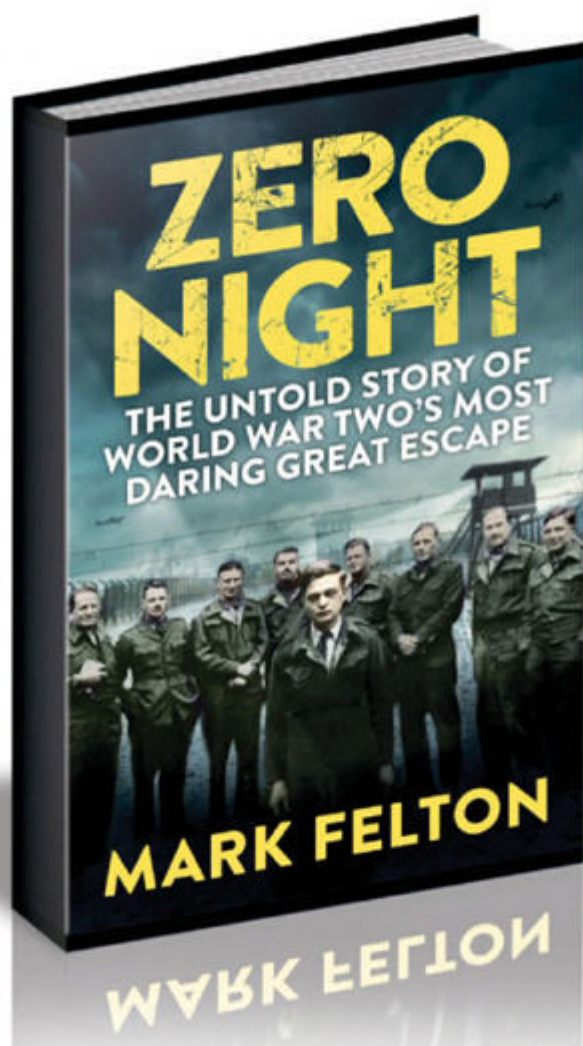
Unlike the men from the more-famous escape, the prisoners in this breakout didn't go out through tunnels. Instead, they went over the wire in what fellow prisoner and legendary RAF fighter ace Douglas Bader would later describe as "the most brilliant escape conception of the war."

And it was brilliant. Brilliantly executed and brilliantly planned. In the months

leading up to it, papers were forged, outfits were created and decoys arranged. Folding ladders to tackle the double set of 12-foot-high perimeter fences were even built in plain sight of the Germans who were led to believe the POWs were knocking up bookshelves for themselves.

When 'Zero Night', as the actual breakout was code-named, arrived a group of prisoners managed to cause a disturbance and turn the camp's lights out, while another group of 41 rushed the wire. The camp was only in darkness for 3 minutes, but that was enough time for 28 of the 41 men who tackled the fences to get away, scarpering into the night with bullets zinging past their ears. Although most were recaptured three did manage a 'home run' and escaped. This is undeniably history as it should be told and a thundering good read.

“This is undeniably history as it should be told and a thundering good read”



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WAR IN NUMBERS

NORTH KOREA

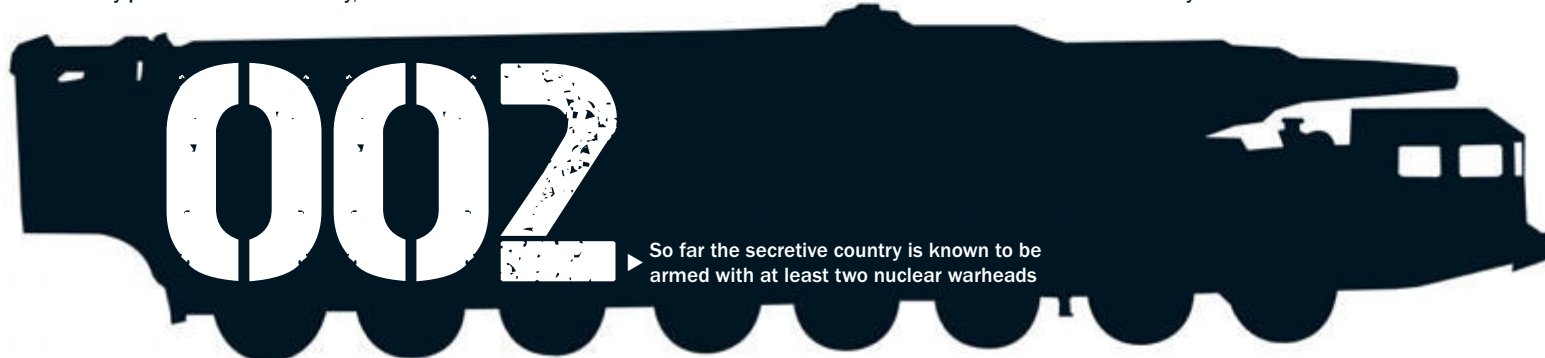
Why Kim Jong-un's North Korea is the world's most feared secret state

1.19 million

▲ Military personnel on active duty, with another 4.7 million in reserve

150

Number of cross-border military incidents between 1958-2010 ▲



So far the secretive country is known to be armed with at least two nuclear warheads

149th

The Institute for Economics & Peace's Global Peace Index, 2011, rated North Korea above only Somalia, Iraq, Sudan and Afghanistan

65 YEARS

\$5-6 BILLION



▲ With no official peace treaty signed, North Korea has been in a state of war with South Korea since 1950

250km

The full length of the de-militarised zone bordering South Korea ▲

▲ Estimated defence expenditure for the Korean People's Army

COMBAT

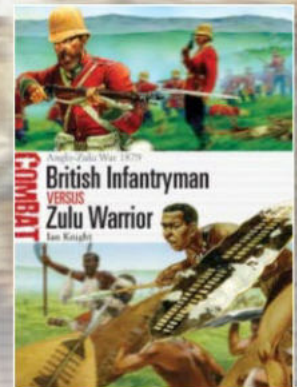
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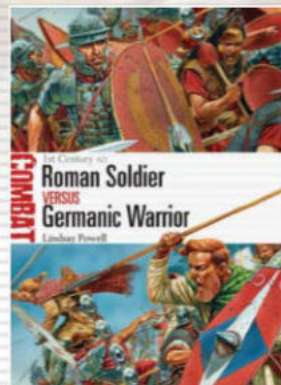
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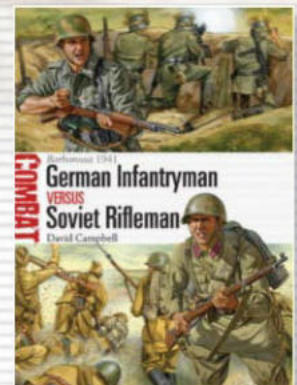
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